

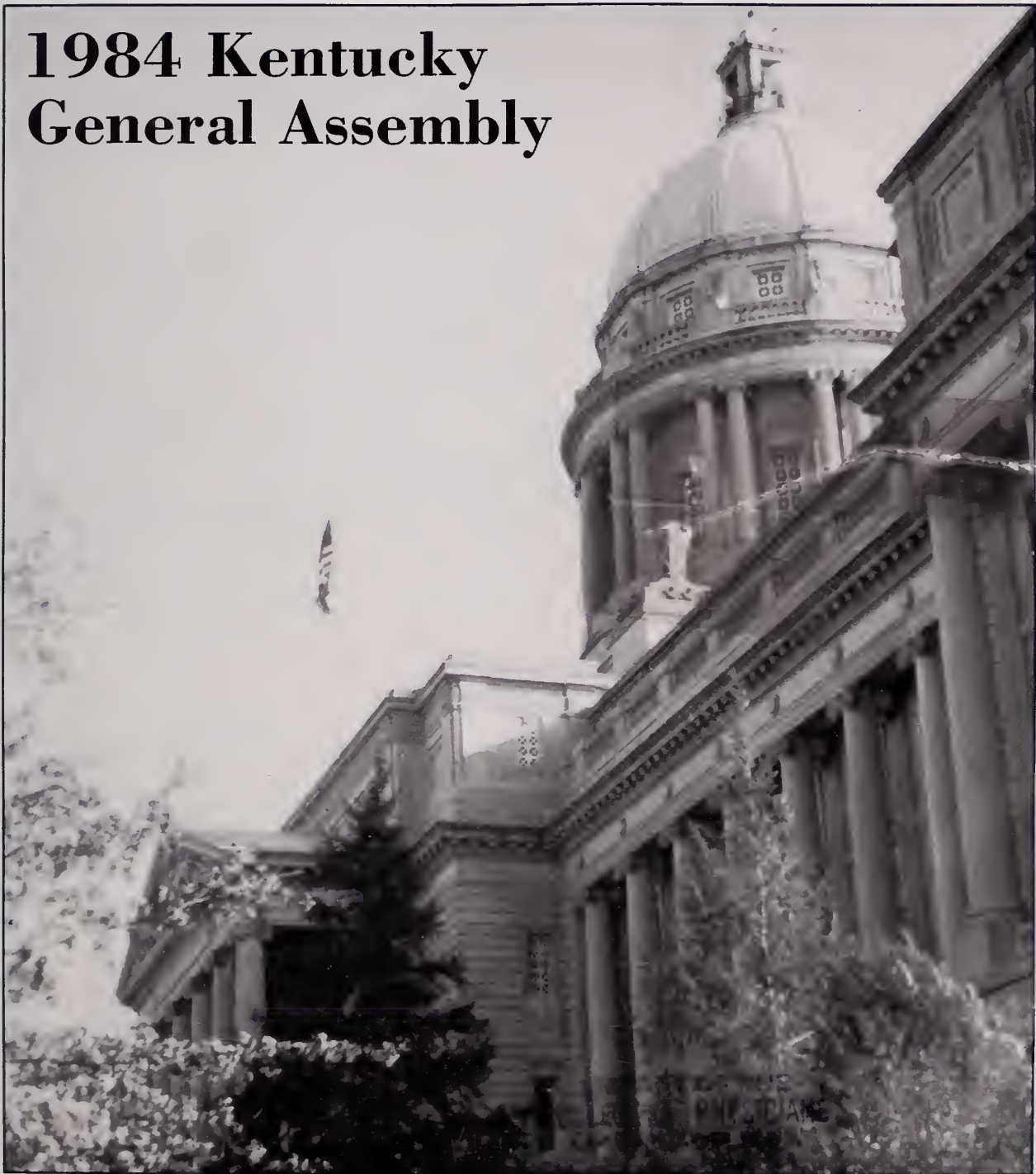
STACKS

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

1984 Kentucky General Assembly



Volume 82, Number 1

JAN 19 1984

January 1984

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

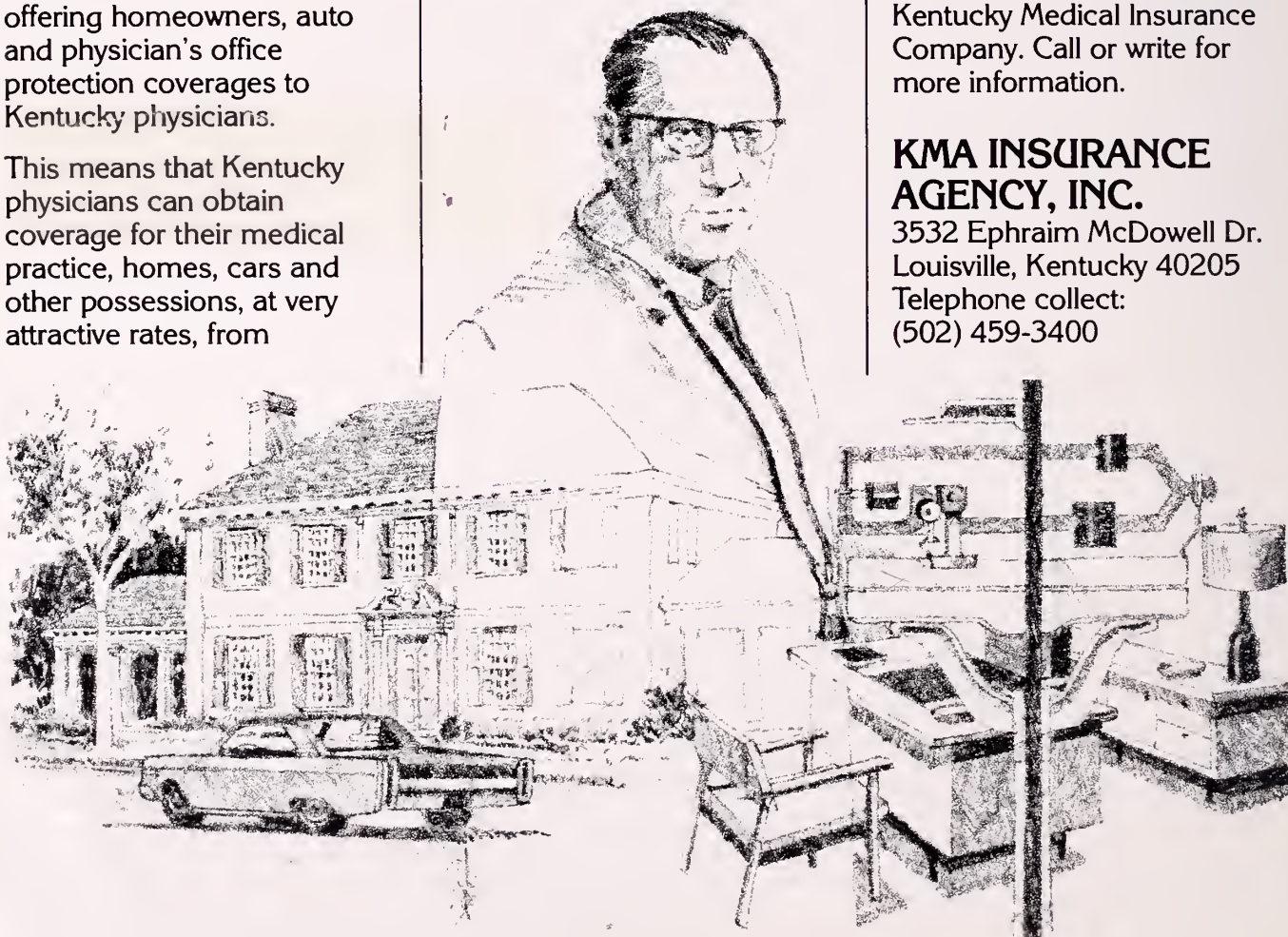
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



JOURNAL OF THE
Kentucky
Medical
ASSOCIATION

Volume 82, Number 1

January 1984

SCIENTIFIC

Sudden Death of a Runner <i>Jeffrey A. Hilb, M.D., F.A.C.P.</i>	9
Immunoblastic Leukemia <i>M. Ernest Marshall, M.S., M.D. and Eric C. Wilson, M.D.</i>	13
Radiographic Manifestations of Pulmonary Tuberculosis <i>John H. Woodring, M.D.</i>	17
Antibiotic-Impregnated Beads in Orthopedic Infectious Problems (Grand Rounds) <i>David Seligson, M.D.</i>	25

EDITORIAL

New Kids on the Block	31
-----------------------	----

ASSOCIATION

Officers, KEMPAC Board of Directors	41
G. Douglas Sutherland Elected President of BCBS	45
1982-83 Annual Report Kentucky State Board of Medical Licensure	48

REGULAR FEATURES

President's Page	5
Book Reviews	35
Letters to the Editor	39
News	46
Postgraduate Page	49
Members in the News	50
In Memoriam	51

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific; Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign, (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1983, Kentucky Medical Association.

Cover photograph by Brenda Piercefield

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533.....	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40403 (606) 986-2323	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1986
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6143	1984

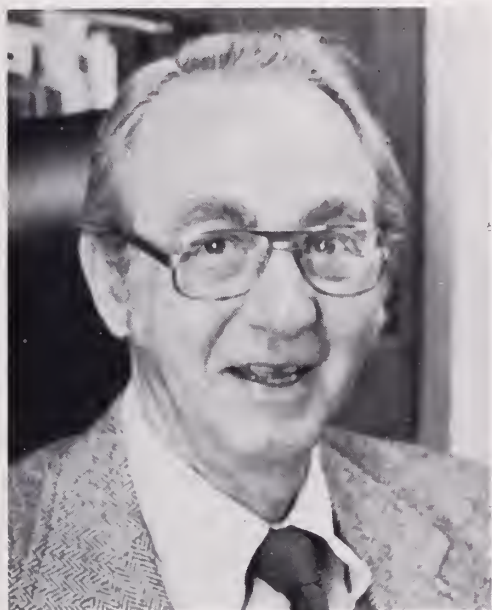
Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6472	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574	1986
4th.....	THOMAS R. TAYLOR, M.D., 911 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th.....	BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111.....	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40342 (502) 839-6981.....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3748	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1984
12th.....	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 324-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

JANUARY BUYERS' GUIDE FOR *JOURNAL OF KMA*

Glassified	32	Medical Protective Company	40
General Leasing	42	Pfizer Labs.	12-43
KMA Insurance Agency	2, 31	Roche Laboratories	53-54
Kentucky Medical Insurance Agency	21	Spectrum Emergency Care.....	42
KMCO	38	U.S. Air Force	33
A. P. Lee Agency, Inc.	37	Upjohn Company	41
Eli Lilly & Company	30	Wyeth Labs.	7-8

PRESIDENT'S PAGE



Are You Ready?

The last time I wrote an article of this sort, it was to rejoice over the good fortune the Kentucky Medical Association had enjoyed during the 1982 Session of the Kentucky General Assembly and to compliment all those involved for the tremendous job they had done. Now we've come full circle. The 1984 Session is upon us, and I encourage you to once again assume the tasks and responsibilities you handled so ably two years ago.

The Association cannot afford to rest on its laurels. While our Key Men, Legislative and Quick Action Committees and a very able staff will be doing all they can to assure all goes well for medicine, each member must also play a role in dealing with the Legislature. Knowledge of the issues and an ability to communicate KMA's concerns to your Senator and Representative are of paramount importance. If you are uncertain about the Association position on an issue, call the legislative office in Frankfort or the main office in Louisville. If an answer to your question is not immediately available, a member of the staff will provide a response as quickly as possible. Coordinating matters in this way insures the maintenance of a credible, consistent policy regarding issues and uniform reaction to the constant change that hallmarks every Legislative Session.

I am normally an optimist, but over the last nine years the approach of each Session has prompted a sense of foreboding. Nineteen eighty-four is no exception. I won't tell you the world is coming to an end, but I will say that this is an extremely trying time for med-

icine. During the past year we have seen an unprecedented amount of activity at both the State and National levels regarding matters which affect the medical profession. The desire to cut the cost of medical care prompted nearly all these legislative, regulatory and administrative changes. A similar desire has caused business and industry to increase their awareness of activities in the health care field, and new alliances are being formed, geared toward the end that fewer dollars will be spent on health care benefits. The use of block grants and the across-the-board cutback in Federal funding have brought about State action to change delivery mechanisms, the formation of Citicare, the promotion of Health Maintenance Organizations, Individual Practice Associations and Preferred Provider Organizations, as well as the utilization of allied health personnel in independent roles. We've also seen a reduction in reimbursement under the government medical assistance programs, the initiation of DRG payments, so-called competition health insurance bills, mandatory outpatient surgery, inpatient preauthorization and other infringements on the physician's decision-making process.

Some of these proposals emanated from the final report of the Governor's Coalition to Address Health Care Costs. Others were incorporated into the State Health Plan which was signed by Governor Brown in mid-1983. Those "experiments" which came from the State originated in either the Executive Branch or the Health Planning Division of the Cabinet for Human Resources.

PRESIDENT'S PAGE

In response, KMA voiced its concern through testimony at public hearings, in meetings with governmental officials, and in official correspondence addressing the State's proposals. The potential for lowering the quality of care, as well as the loss of freedom of choice, were among the many factors repeatedly emphasized. Even though it was estimated that more than 90% of the public testimony at statewide hearings on the State Health Plan was in opposition, the State Health Planning Council approved the Plan practically in toto.

All of this sets the stage for the upcoming Session and gives you a feeling for the conflict which was nearly all pervasive during the last two years of the Brown Administration. It's too soon to tell how the new Administration will respond to the need for legislative action to implement some of the more controversial proposals of the State Health Plan. For that reason, we must remain wary.

As I noted earlier, we also have to be concerned that the health cost issue may produce an erosion of some of the alliances we normally maintain. Narrowing profit margins and lower "bottom lines" have prompted business and industry to be particularly critical of budget items which appear inordinately high. Some feel health care costs fit into that category. If you add that feeling

to the self-professed ability of some non-physician groups to deliver similar quality care at lower cost, you produce a fairly volatile mixture. While business and industry generally may not be satisfied that the non-physician claims are accurate, the climate is such that some are willing to "take a chance." Such an attitude does not bode well for medicine or the patients we serve.

Keep these things in mind. Ready yourself for the Legislative Session as you would the handling of a particularly difficult case. The same diligence is not only necessary, it's important.

Carl Cooper, Jr., M.D.

Chairman, Committee on State Legislative Activities

Phone Numbers:

Frankfort Office: (502) 695-4138

Louisville Office: (502) 459-9790

During the 1984 Kentucky General Assembly, the following toll free telephone numbers are listed for your information:

Status of Particular Legislation

Phone: 1-800-372-2993

To Reach Your Legislator

Phone: 1-800-372-2985

Action without interaction

when given with drugs that utilize the P450 system*

- unlike diazepam and chlordiazepoxide, no interaction with cimetidine
- unlike diazepam, clearance not delayed by oral contraceptives

no interaction reported with more than 300 other drugs in clinical trials*

P450

Agent of change

Ativan[®]
for (lorazepam) @
Anxiety



See important information on following page.

*All benzodiazepines produce additive sedative effects when given with alcohol or other CNS depressants.

© 1983, Wyeth Laboratories.

Wyeth Laboratories
New York, NY

NEW TABLET DESIGN 0.5, 1.0 and 2.0 mg

The appearance of these tablets is a trademark of Wyeth Laboratories.

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid over-sedation. Terminate dosage gradually since abrupt withdrawal of any anti-anxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown, but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia, some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan[®] (lorazepam) for Anxiety

DOSAGE: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

HOW SUPPLIED: 0.5, 1.0 and 2.0mg tablets.

Wyeth Laboratories
Philadelphia, PA 19101



CHANGING ADDRESS?

Please let us know at least four weeks before changing your address.

Send new address to:

**Journal of the Kentucky
Medical Association**

3532 Ephraim McDowell Drive

Louisville, Ky. 40205

Sudden Death of a Runner

JEFFREY A. HILB, M.D., F.A.C.P.

Despite the promotion of running as a healthful activity, there is evidence that such aerobic activity may be potentially harmful or even fatal. An illustrative case report is presented. The recent medical literature is reviewed to support the contention that caution is in order before giving unrestricted endorsement to running for cardiovascular fitness.

It has been strongly advocated that running and other such aerobic activity are conducive to good health.

In recent years, however, it has become apparent that runners are not immune from heart disease. The following is an illustrative case:

Case Report

A 50-year-old white male collapsed 40 feet from the finish line in the annual 13.1 mile Kentucky Derby Mini-Marathon. He was taken immediately to a local hospital, but emergency medical measures failed to save him.

The runner was in previously good health and on no medication. He was careful with his diet, consumed an occasional social beer, and rarely smoked a cigarette. He took supplemental Vitamin C on occasion. The subject was orphaned, with no family history of heart disease in any known relatives. He retired from the Army after 27 years of service. During that time he was active in the infantry and qualified as a paratrooper, continuing to make jumps and maintain good physical fitness. His discharge physical examination revealed only hearing loss in one ear. After separation from the service he worked for four years until his death as a foreman for a cement company. His work was not particularly strenuous, but he continued to maintain himself in good physical condition by running an average of about six miles per day, running almost daily unless the weather was prohibitive. He had been running regularly for the last nine years. According to family members, the runner had no prodromal symptoms such as fatigue or chest

discomfort in the days preceding the race and told people that he felt well prepared for the run.

The runner presented to the emergency room after CPR had been instituted with a flatline EKG. Because of his age and previously good health, he was in desperation taken to the operating room and placed on cardiopulmonary bypass. Acidosis was corrected and the patient received a blind double bypass graft to the left anterior descending and lateral marginal coronary arteries. In spite of these heroic measures the patient died in the operating room of acute coronary insufficiency, metabolic acidosis, and cardiac arrest. Gross examination during surgery revealed that the LAD was moderately sclerotic. There was no aortic calcification or stenosis noted, nor was there any significant cardiac muscle hypertrophy. Subsequent biopsy specimen revealed minimal arteriosclerosis of a section of aorta. An autopsy was not performed. The patient presumably died with existing coronary artery disease; however, an unrelated cardiac arrhythmia, electrolyte imbalance, or other contributory cause cannot be excluded.

Discussion

In 1977, Thomas Bassler, both an ultra-marathon runner and a pathologist, published data to claim that he observed no deaths from coronary atherosclerosis in 200 deaths in marathon runners over a 10-year period.¹ This was a rather remarkable absolute claim, subsequently known as the "Bassler hypothesis," implying that anyone capable of running a 26 mile marathon was effectively immune from a coronary death. Bassler did qualify his pronouncement that the protection from coronary artery disease was not necessarily based on the exercise factor alone as the individual capable of running 26 miles would, in general, avoid tobacco and follow a prudent diet. Milvey subsequently challenged Bassler's claim.² He questioned the autopsy methodology and the number of histologic slides that Bassler actually reviewed.

Earlier Opie in 1975 reported on sudden death in 21

DEATH OF A RUNNER—Hill

sportsmen.³ Eighteen of the 21 deaths were thought to be caused by heart attacks either during or after sport. There was definite evidence of coronary artery disease in nine, probable evidence in seven, and in two only mildly suggestive clinical support. In total the sportsmen were noted to have an average age above 30, a family history of early heart disease, antecedent symptoms of chest discomfort, fatigue, syncope, or some nonspecific complaint, and most were known to their physicians. Only one of the patients in Opie's study was actually a runner.

Opie reported three additional cases of runners suffering a sudden death during or shortly after exercise where post-mortum examination showed definite ischemic heart disease.⁴ One had multiple small infarcts, another coronary atheroma, and another markedly narrowed coronary arteries.

Green and associates reported in 1976 the first case of a myocardial infarction in a marathon runner while actually running a marathon.⁵ The 44-year-old male collapsed after completing 24 miles of the 1973 Boston Marathon. He was successfully resuscitated from a ventricular fibrillation rhythm, but death occurred after being in a coma for 50 days. At autopsy the coronary arteries did not exhibit significant atherosclerosis, though clearly the marathon runner had extensive transmural anterior myocardial infarction demonstrated on the EKG and proved at autopsy.

Noakes reported a case of a 42-year-old man who died suddenly in a marathon.⁶ The man was noted to have a heart murmur at age seven and advised to restrict physical activity. The patient had a family history of heart disease and was for a time a moderate smoker until he took up competitive running. Ventricular hypertrophy, but no asymmetrical septal hypertrophy was noted at autopsy. The coronary arteries were normal. Characteristics of hypertrophic cardiomyopathy were noted on histological examination. Noakes proposed that the runner died from myocardial ischemia, aggravated by running with a background of hypertrophic cardiomyopathy and suggested that the additional cardiac work of marathon running with the presence of a mild congenital cardiac defect could have contributed to the evolution of the myopathy.

Noakes and associates reported on four cases of autopsy-proven coronary atherosclerosis in marathon runners.⁷ Previous reports had demonstrated myocardial infarction in runners with normal coronary arteries or cases of hypertrophic cardiomyopathy, but Noakes in

this presentation demonstrated definite myocardial infarction and definite coronary artery disease with solid autopsy data. One runner had a coronary-artery thrombus, dying in a hospital while awaiting coronary artery bypass for unstable angina. Another died during a 24 km. road race with severe coronary atherosclerosis. Two runners killed in an automobile accident had extensive coronary artery disease.

Thompson and colleagues studied the histories and circumstances of death in 18 runners who died during or shortly after completing a run.⁸ They reported that 13 men died of coronary artery disease while four men and one woman died of other causes. Six of those dying with CHD had medical histories compatible with cardiac disease, but only one had been previously diagnosed. Six of those dying from a cardiac cause experienced at least a vague prodromal symptom, but, nevertheless, continued to exercise. Though most runners in the study trained regularly for years, two ran less than a month. Of interest was the fact that those dying with CHD did not have cardiac risk profiles statistically different from age-matched, physically active men.

Waller and Roberts reported on a series of patients known to be conditioned runners over 40 suffering a sudden death.⁹ The five runners varied in age from 40 to 53 and ran from 13 to 105 miles per week from one to 10 years. The subjects had no clinical basis for pre-existing cardiac disease before they became regular runners. All died while running. Four of the five runners had high cholesterol, two were hypertensive, one had angina, but none had evidence of myocardial infarction. The resting EKG and exercise stress test in four were normal, whereas the single runner with angina had an abnormal electrocardiogram and positive exercise stress test. All had severe coronary artery narrowing of the major vessels demonstrated at autopsy. All of the five had greater than 75% narrowing of cross-sectional area by atherosclerotic plaques of the right, left anterior descending, and left circumflex coronary arteries. Four of the five had healed myocardial infarctions that were apparently clinically silent.

In contrast to the coronary artery disease noted in runners over 40, Marion and workers studied sudden death in young athletes.¹⁰ They examined 29 conditioned and competitive athletes having ages from 13 to 30 who died unexpectedly. Sudden death happened during or just after exertion in 22 of the 29. An autopsy in 28 of the 29 athletes anatomical cardiovascular ab-

DEATH OF A RUNNER—Hill

normalities were noted, and in 22 were felt to be the most likely cause of death. Hypertrophic cardiomyopathy was the most common cause of death noted in 14 athletes. Other cardiovascular abnormalities reported included idiopathic concentric left ventricular hypertrophy, ruptured aorta, coronary artery disease, anomalous origin of the left coronary artery from the right sinus of Valsalva, and hypoplastic coronary arteries. Heart disease was suspected in only seven of the 29 athletes during life, and in only two was the correct clinical diagnosis made.

Morales reported on the sudden death of three individuals while exercising (a 54-year-old male runner, a 34-year-old male runner, and a 17-year-old female swimmer) where postmortum studies demonstrated an unobstructed, but mural left anterior descending artery.¹¹ There was also reduced vascularity to the posterior left ventricular septum as well as evidence of patchy, ischemic necrosis of the ventricular septum in varying stages of healing. Up until recently, muscular overbridging of the coronary arteries (most commonly the LAD) has been considered a normal variant. There have been reports of relief of angina by myotomies of the overbridging in selected cases.¹² It has been suggested that a mural LAD may be critically constricted during systole and produce myocardial ischemia and fibrosis and could, in fact, cause death.¹³

Virmani reviewed the deaths of 24 runners taken from the files of the Armed Forces Institute of Pathology.¹⁴ Ages ranged from 27 to 57 with an average of 40 years. A running history was available for 16 subjects who ran from seven to 105 miles per week (ave. 35 miles/week). Twelve runners had risk factor histories including a family history of heart disease, elevated cholesterol, and/or hypertension. Nine of the 24 had a previous history of coronary heart disease and two had experienced transient ischemic attacks. Of electrocardiograms available in nine patients, seven were within normal limits, one showed nonspecific ST-T wave changes, and one showed RBBB for the past eight years. One marathon runner was known to have a prolapsed mitral valve. Of the 24 subjects, 13 died suddenly while running and six died shortly after running while three patients died in their sleep. Twenty-three runners had severe coronary atherosclerosis defined by specific autopsy criteria.

Thompson looked at the incidence of death while running in the Rhode Island population from 1975-1980.¹⁵ He noted that 12 men died during that time

span, one from acute gastrointestinal hemorrhage and the remainder from coronary artery disease. With a telephone survey he determined that among men age 30 through 64, 7.4% reported themselves to be runners, using running at least twice per week as a definition. The incidence of death during running of this subset was one death per year for every 7620 runners, or about one death per 396,000 man-hours of running. This rate was noted to be seven times the estimated death rate from coronary heart disease during sedentary activities and implied that exercise contributes to sudden death in susceptible persons. The low occurrence of death in runners overall, however, supports the contention that the risk of exercise is small. Thompson pointed out that at least 2,000 exercise stress tests and perhaps as many as 13,000 tests would have to be performed to identify one potential victim of an exercise-related death. He felt that the routine testing of asymptomatic adults before starting an exercise program was not justified.

Conclusions

There would seem to be more than sufficient data to totally disprove the "Bassler hypothesis" that marathon runners are immune from coronary artery disease. One could speculate about certain pathophysiologic concepts that could enter into the picture. Exercise may precipitate arrhythmia, as ventricular fibrillation and severe exertion are associated in maximum-effort testing. Most certainly a heart attack during exercise in a person with existing coronary artery disease could be a consequence of either increased myocardial oxygen demand outstripping the blood supply and/or disturbances of the cardiac rhythm and conduction induced by exercise. Because of the release of free fatty acids after exercise and the stimulation of excess catecholamines, a coronary event may actually be more common in the period immediately following vigorous exercise. To explain how a myocardial infarction could occur with normal coronary arteries one could incorporate the notions of thrombocytosis, platelet-fibrin emboli that subsequently lyse, abnormal hemoglobin-oxygen dissociation, or coronary artery spasm. One could go as far as arguing that a marathon runner may be at a lower risk of a cardiovascular death when not running, but at a higher risk during or shortly thereafter running. Even with autopsy proof of coronary disease, the possibility of concurrent heat stress or electrolyte imbalance cannot be ruled out in an individual case.

DEATH OF A RUNNER—Hilb

From a common sense standpoint, one could suppose that a young, healthy individual might benefit from the aerobic exercise of running whereas a person with already existing coronary artery disease might only be unduely stressing an already compromised cardiovascular system. The data seem to bear this out as the cardiac deaths in the younger athletes seem to be largely from cardiomyopathy or some congenital abnormality, whereas the vast majority of deaths in those over 40 are from coronary artery disease.

What practical considerations may we derive from all of this? There is no real proof that a thorough physical exam should be advocated for a beginning runner since this has not prevented catastrophic running events from occurring, nor would exercise stress testing be justified. On the other hand, an echocardiogram done on a young athlete with a seemingly benign heart murmur could, perhaps, lead to the early diagnosis of a condition that could be aggravated by strenuous physical activity. Although some, but not all, of the runners experienced some prodromal symptoms prior to a cardiac death, they were often vague and seemingly inconsequential. Further, some of the runners did experience significant symptoms very compatible with coronary artery disease and tried to "run through" them with an ultimately fatal outcome.

I have tried to present arguments disproving that runners are absolutely protected from coronary artery disease, I am not, however, advocating that running and other such aerobic activity are not worthwhile enterprises. In fact, the large body of evidence would seem to demonstrate that physical activity is a positive factor

in the prevention of coronary artery disease.¹⁶ Further, the qualitative aspect of a more fulfilled lifestyle should be emphasized along with any quantitative consideration of the very small, but finite, probability of a cardiac death from running.

References

1. Bassler TJ: Marathon running and immunity to atherosclerosis. *Ann NY Acad Sci* 301:579, 1977.
2. Milvy P and Brown KS: A critique of several epidemiological studies of physical activity and its relationship to aging, health, and mortality. *Ann NY Acad Sci* 301:703, 1977.
3. Opie LH: Sudden death and sport. *Lancet* 1:263, 1975.
4. Opie LH: Long distance running and sudden death. *N Engl J Med* 293:941, 1975.
5. Green LH, Cohen SI, and Kurland G: Fatal myocardial infarction in marathon racing. *Ann Int Med* 84:704, 1976.
6. Noakes TD, Rose AG, and Opie LH: Hypertrophic cardiomyopathy associated with sudden death during marathon racing. *Brit Heart J* 41:624, 1979.
7. Noakes TD, Opie LH, Rose AG, and Kleynhaus PHT: Autopsy-proved coronary atherosclerosis in marathon runners. *N Engl J Med* 301:86, 1979.
8. Thompson PD *et al*: Death during jogging or running. A study of 18 cases. *JAMA* 242:1265, 1979.
9. Waller BF and Roberts WC: Sudden death while running in conditioned runners aged 40 years or over. *Am J Cardiol* 45:1292, 1980.
10. Marion BJ *et al*: Sudden death in young athletes. *Circulation* 62:218, 1980.
11. Morales AR, Romanelli R, and Boucek RJ: The mural left anterior descending coronary artery, strenuous exercise and sudden death. *Circulation* 62:230, 1980.
12. Grondin P *et al*: Successful course after supra-arterial myotomy for myocardial bridging and miling effect of the left anterior descending artery. *Ann Thorac Surg* 24:422, 1977.
13. Noble J *et al*: Myocardial bridging and milking effect of the left anterior descending coronary artery: normal variant or obstruction? *Am J Cardiol* 37:993, 1976.
14. Virmani R: Jogging, marathon running, and death. *Prim Cardiol* 96, 1982 (apr.).
15. Thompson PD *et al*: Incidence of death during jogging in Rhode Island from 1975 through 1980. *JAMA* 247:2535, 1982.
16. Hilb JA: Physical activity in the prevention of coronary atherosclerosis. *J Ky Med Assoc* 81:351, 1983.

Immunoblastic Leukemia

M. ERNEST MARSHALL, M.S., M.D. AND ERIC C. WILSON, M.D.

Immunoblastic leukemia is rare. It occurs in approximately 5% of patients with immunoblastic sarcoma. We report a patient whose initial presentation of immunoblastic sarcoma was marked by a leukemic picture that responded promptly to chemotherapy. The literature is briefly reviewed.

The term "immunoblastic leukemia" denotes the leukemic phase of immunoblastic sarcoma (IS) (Malignant lymphoma, immunoblastic). Immunoblastic leukemia is a rare event. Lennert¹ estimated that immunoblastic leukemia occurs in approximately 5% of all cases of IS. Most of these patients develop the leukemic picture during the terminal phases of the disease. It is uncommon to see the leukemic phase at the time of initial presentation.

We present the case history of a patient whose initial presentation of IS was marked by an immunoblastic leukemia.

Case Report

A 77-year-old man was hospitalized with a three-month history of malaise, weakness and weight loss. Past history was remarkable for severe rheumatoid arthritis. Physical examination revealed bilateral lymphadenopathy in cervical, supraclavicular, axillary and inguinal areas. There was marked hepatosplenomegaly, ascites and lower extremity pitting edema. WBC was 10,500/mm³ with 46% PMNs, 3% bands, 6% lymphocytes, 2% eosinophils, 23% monocytes and 10% "blasts," 9% promyelocytes and 1% nucleated erythrocytes. Hemoglobin was 12.8 gm%; platelet count 110,000/mm³. LDH, SGOT, alkaline phosphatase, total bilirubin and uric acid were elevated. Serum lysozyme was 16.0 mcg/ml (normal, 4-13 mcg/ml). Bone marrow aspirate and biopsy revealed the marrow to be 75% cellular and there was diffuse lymphomatous infiltration (Figure 1). Immunoblasts accounted for 40-50% of all nucleated elements. Figure 2 shows an immunoblast as seen in the peripheral blood smear. An excised axillary lymph node revealed features typical of immunoblastic sarcoma (IS) with diffuse effacement by large lymphoid

cells containing abundant pyroninophilic cytoplasm and round to ovoid nuclei with large single nucleoli (Figure 3).

The patient was treated with cyclophosphamide, doxorubicin, vincristine sulfate and prednisone (CHOP). Fourteen days after the first cycle of CHOP the lymphadenopathy, hepatosplenomegaly, ascites, peripheral edema and leukemic picture were completely resolved and he was symptomatically improved. After two cycles of CHOP he withdrew from therapy and died four months later of unrelated cause. Post-mortem examination was not performed.

Discussion

Immunoblastic sarcoma (IS) (Malignant lymphoma, immunoblastic) is a high grade malignant lymphoma that is included within the classification schema of Lukes-Collins, Lennert, Kiel and the NCI Working Formulation. IS was first described as a pathologic entity by Lukes and Collins^{2,3} in 1973. The tumor cells contain a large vesicular nucleus (20 μ m or more in diameter) with a sharply defined nuclear membrane, peripherally clumped chromatin and a single prominent nucleolus that is centrally located. The nuclear outline is round to oval with very little folding or lobulation. The cytoplasm is lightly basophilic.¹

Although IS has been widely accepted as a pathologic entity the clinical characteristics of this disease are incompletely documented. Certainly immunoblastic leukemia is an uncommon manifestation of IS.

Lennert has stated that "a pronounced leukemic blood picture develops only rarely"¹ and he estimated that immunoblastic leukemia occurs in approximately 5% of all cases of IS.

Lichtenstein *et al*⁵ offered a clinical description of 33 patients with IS. Fifteen of their patients were lymphocytopenic (lymphocyte count < 1,000/mm³) at the time of presentation. Three of these patients had tumor cells in the peripheral blood smear but there was no further information on this subgroup of patients to know if they pursued a distinctive clinical course.

Mathe' *et al*⁶ reported a series of 20 patients with IS.

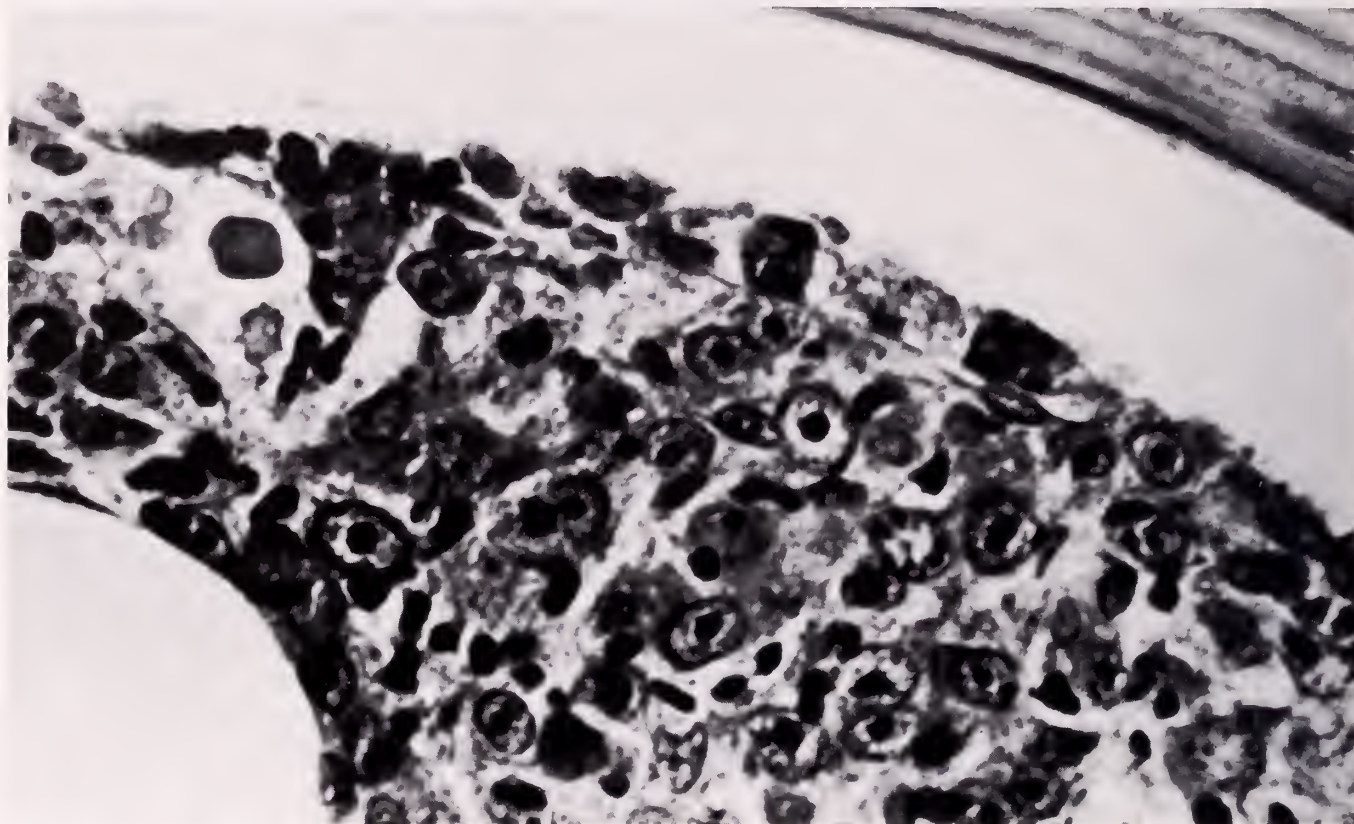


Fig 1: Bone marrow biopsy revealing peritrabecular infiltration by immunoblastic sarcoma.

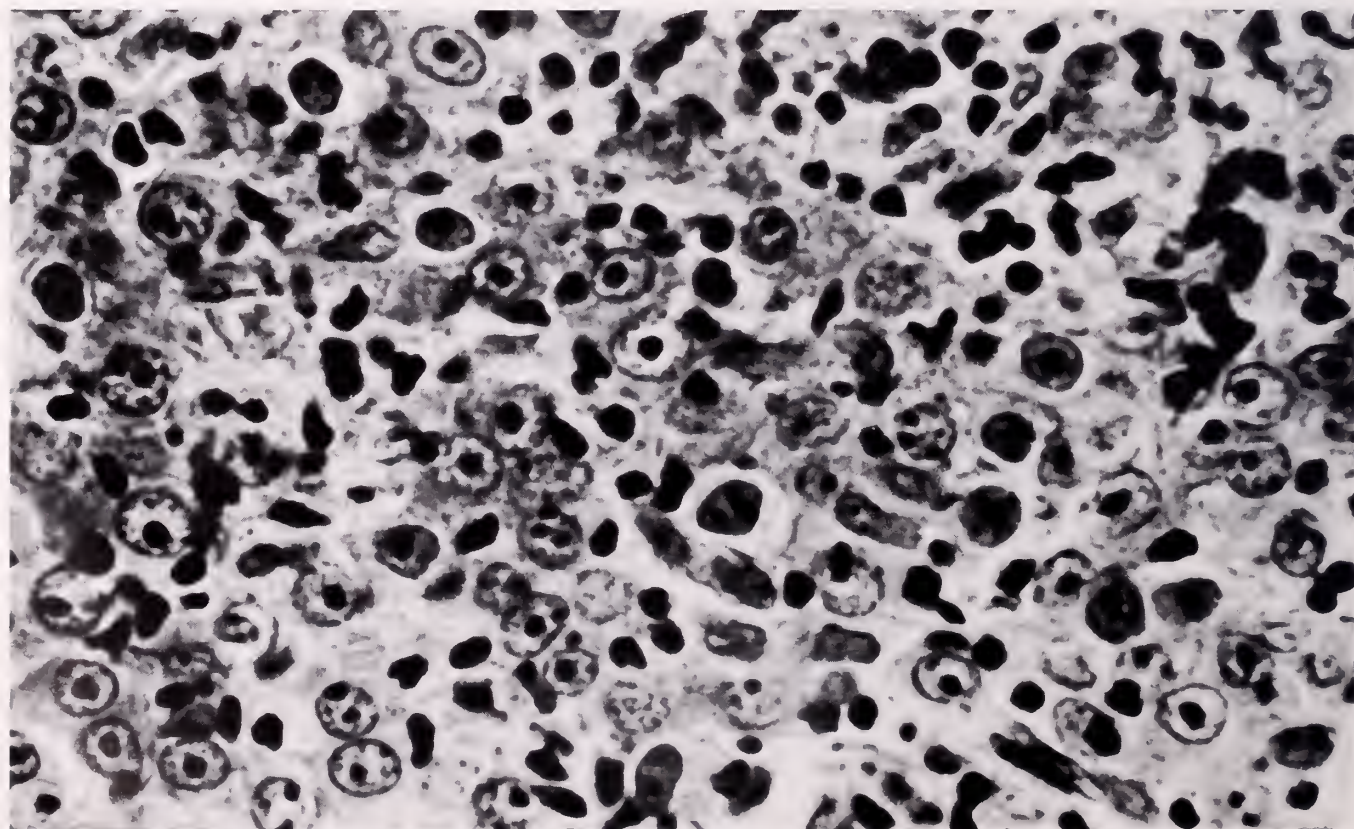


Fig 3: Lymphomatous infiltration of lymph node containing large numbers of immunoblasts.

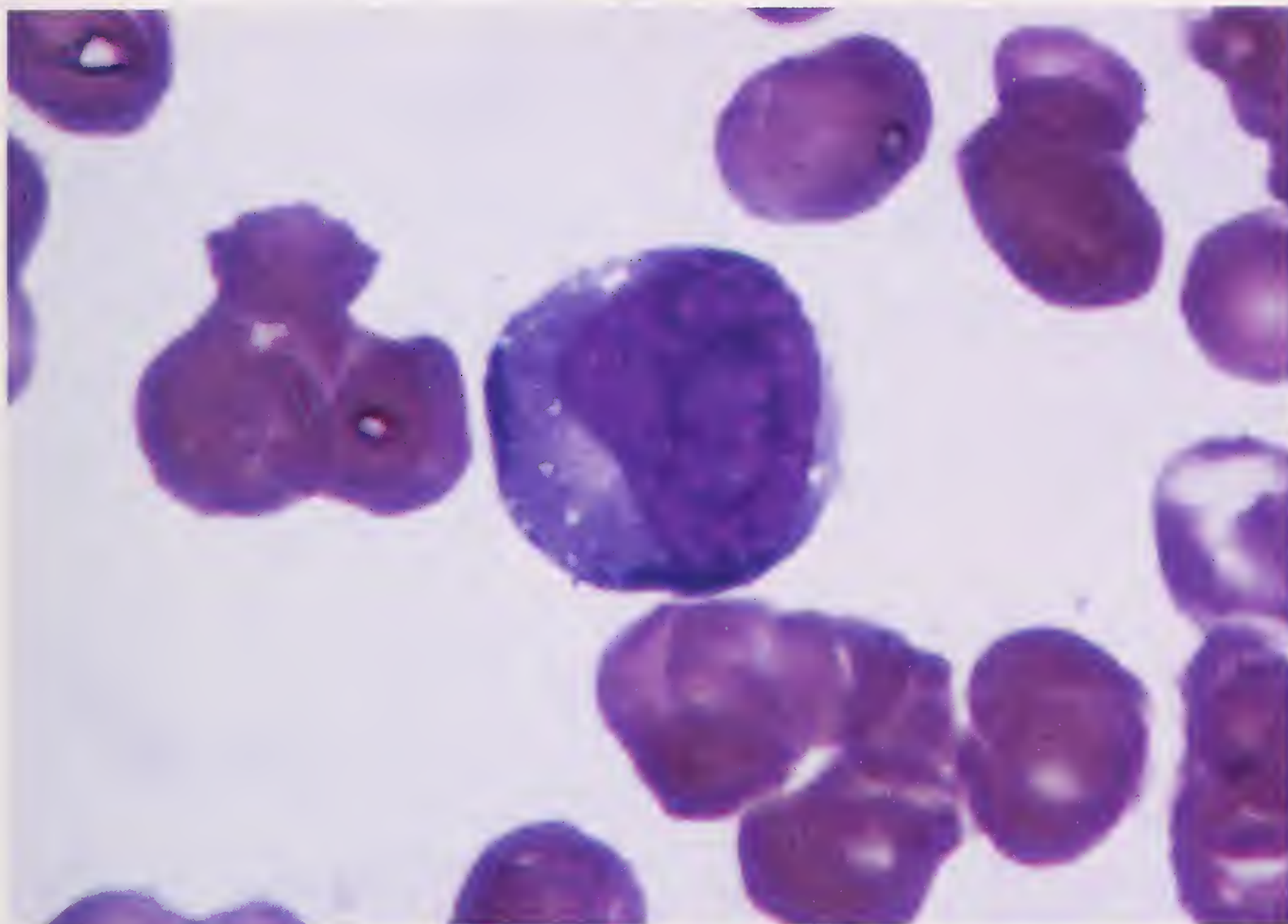


Fig 2: Immunoblast as seen in peripheral blood smear (Wright's stain).

All 20 patients *initially* had normal leukocyte counts and normal bone marrow examinations. Nine of these 20 patients eventually underwent a leukemic conversion with a circulating blast count between 0-50,000/mm³. Analysis by stage showed that three patients were stage II, two were stage III and four were stage IV. The period between the initial onset of symptoms and leukemic conversion was 15-150 days. Chemotherapy for the leukemic phase of the disease produced only two complete responses from the nine patients. Eight of the nine patients were dead at the time of the report with a median survival of six months from the beginning of the leukemic phase.

Lichtenstein *et al*⁵ identified a subset of patients with IS who possessed a particularly poor prognosis. Patients in this group had two of the following prognostic indicators at presentation: Lymphocytopenia ($< 1,000/\text{mm}^3$); stage III or IV disease; systemic symptoms. Our patient displayed all three of these poor prognostic indicators.

Our patient is distinguished from others in the literature in that the leukemic picture was present at initial evaluation and was treated initially with a chemotherapeutic regimen that contained adriamycin (CHOP). Several patients in the series of Mathe' *et al*⁶ developed a leukemic phase late in the course of their disease after having received chemotherapy.

While it is rare for IS to display a leukemic phase **at presentation** the prognostic significance of this finding cannot be stated with certainty until further cases are reported. The present report does demonstrate, however, that the leukemic phase of IS is responsive to therapy, at least initially.

IMMUNOBLASTIC LEUKEMIA—Marshall and Wilson

References 1. Lennert K: *Malignant Lymphomas Other Than Hodgkin's Disease*. New York, Springer-Verlag, 1978. 2. Lukes RJ, Collins RD: Immunologic Characterization of human malignant lymphomas. *Cancer* 34:1488-1503, 1974. 3. Lukes RJ, Collins RD: New approaches to the classification of the lymphomata. *Br J Cancer* (Suppl. 2) 31:1-28, 1975. 4. Robb-Smith AHT, Taylor CR: *Lymph Node Biopsy*. New York, Oxford University Press, 1981. 5. Lichtenstein A, Levine AM, Lukes RJ, Cramer AD, Taylor CR, Lincoln TL, Feinstein DI: Immunoblastic sarcoma: A clinical description. *Cancer* 43:343-352, 1979. 6. Mathe' G, Belpomme D, Dantchev D, Khalil A, Afifi Am, Taleb N, Pouillart P, Schwarzenberg L, Hayat M, DeVassal F, Jasmin C, Misset JL, Musset M: Immunoblastic lymphosarcoma, a cytological and clinical entity? *Biomedicine* 2:473-488, 1975.

From the Division of Hematology/Oncology and Department of Pathology, Trorer Clinic, Clinic Drive, Madisonville, Kentucky 42431

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

The Radiographic Manifestations of Pulmonary Tuberculosis

JOHN H. WOODRING, M.D.

*Pulmonary infection with *Mycobacterium tuberculosis* remains a major health problem today. Unfortunately, many cases of active tuberculosis are missed or misdiagnosed on the basis of the radiographic examination of the chest. This failure to properly diagnose tuberculosis may be explained by a lack of familiarity with the radiographic manifestations of pulmonary tuberculosis, misconceptions concerning the radiologists' ability to determine activity of the disease, and recent trends toward an ever-increasing incidence of primary tuberculosis in the adult population. The radiographic manifestations of primary and postprimary tuberculosis will be discussed and illustrated.*

Pulmonary infection with *Mycobacterium tuberculosis* remains a major health problem today. Alarmingly, Miller and MacGregor¹ reported in 1975 that of 100 consecutive cases of culture proven pulmonary tuberculosis in adults diagnosed between 1971 and 1975 at the Hospital of the University of Pennsylvania active tuberculosis was overlooked as a diagnostic possibility in 43%. This was due in part to a failure of both the radiologist and clinician to recognize that abnormalities present on the chest radiograph were manifestations of pulmonary tuberculosis and in part was a failure of the clinician to accept the radiographic diagnosis of definite or suspicious tuberculosis as being correct. In all, 20% of the patients were initially discharged from the hospital without a correct diagnosis or antituberculous treatment. This failure to diagnose tuberculosis may be explained by several factors.^{1,2} The recent dramatic shift in the care of the tuberculous patient from the sanatorium to the community hospital has placed the care of these patients in the hands of many physicians who do not have a primary interest in tuberculosis or even pul-

monary medicine, or infectious disease. Secondly, the decreased incidence of tuberculosis over the last 30 years has created a generation of physicians who have little experience with this disease. In addition, the recent increase in incidence of primary tuberculosis in the adult population has produced an often confusing spectrum of radiographic abnormalities in adults with tuberculosis. These abnormalities, often touted as being "unusual," merely represent the normal spectrum of radiographic findings of primary tuberculosis.² The continuing need for the proper diagnosis of tuberculosis has prompted this report. The radiographic findings of primary and postprimary tuberculosis will be discussed and illustrated; pitfalls in interpretation will be emphasized.

Primary, Pulmonary Tuberculosis: Classically thought of as a disease solely of childhood, primary tuberculosis is rapidly increasing in incidence in adults in the United States.^{2,3} Only a small percentage of adults in the United States have positive tuberculosis skin tests indicating that the majority of adults are susceptible to the development of primary tuberculosis.^{2,3} In addition, tuberculosis has been reported as a frequent opportunistic infection in the debilitated or immunocompromised host.² Currently, it is estimated that 10-20% of adult tuberculosis represents primary disease.^{1,2,3} Therefore, the term "childhood" tuberculosis used to describe primary tuberculosis should be abandoned.

Primary tuberculosis in children and adults usually involves one or more of the following four structures: the pulmonary parenchyma, the hilar and mediastinal lymph nodes, the tracheobronchial tree, and the pleura.¹

Primary tuberculosis is often manifested as an ill-defined, homogenous parenchymal density measuring from one to seven cm. in diameter¹ (Figs. 1 and 9 A). This focus is usually solitary but may be multifocal.⁴

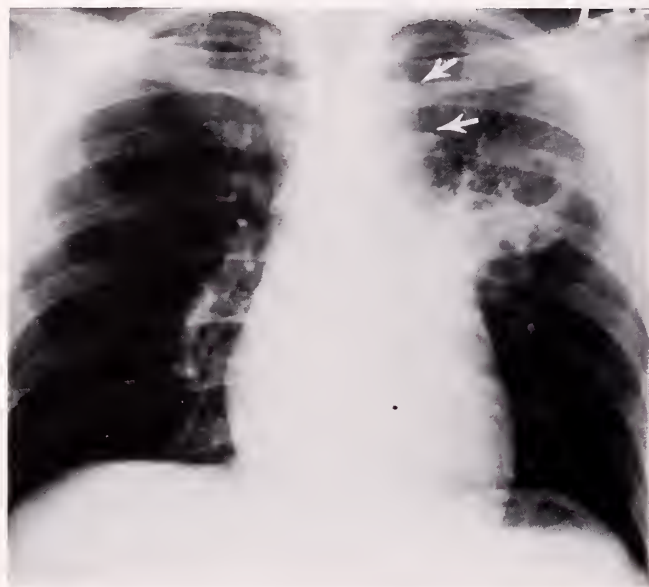


Fig 1: Primary tuberculosis in a 26-year-old black male. Posteroanterior (A) and lateral (B) radiographs demonstrate a cavitary infiltrate in the anterior segment of the left upper lobe. There is also paraaortic lymphadenopathy (arrows).

The primary focus of disease occurs equally between the anterior and posterior segments of the lung; the upper lobes are involved slightly more often than the middle or lower lobes.^{4,5} When the lower lobes are involved, the superior segment seems to be a common location.⁴ There is no difference in the occurrence of the primary pneumonic infiltrate between the right and left lung.^{4,5}

Cavitation has been reported as being a rare manifestation of primary tuberculosis⁴ (Fig. 1). In 1960, Joffe reported 27 cases of cavitating primary tuberculosis in infants under two years of age from the Bargwanath Hospital in Johannesburg, South Africa.⁶ Factors considered to be important in the development of cavitation in primary tuberculosis include race (cavitation appears to be more common in non-Caucasians) and low socioeconomic status.^{4,6} However, Joffe felt that one of the more important factors in the development of cavitation in his series was the failure to diagnose and treat primary tuberculosis early.⁶

Lymph node involvement (Figs. 1 and 2) may be seen in up to 96% of cases of primary tuberculosis in children and it is this finding which helps to distinguish primary from postprimary disease.^{4,5} Lymphadenopathy in primary tuberculosis in adults is uncommon, occurring in only about 10% of cases.² Weber *et al*⁵ reported bilateral hilar lymphadenopathy in 16%, unilateral hilar lymphadenopathy in 43%, and unilateral hilar and paratracheal lymphadenopathy in 41% of cases of primary tuberculosis in children. In adults the hilar nodes

are enlarged in 4% and the paratracheal nodes in 6% of cases.² Enlarged lymph nodes in the hilum or mediastinum may be the sole evidence of tuberculosis.^{7,8} This is not uncommon in children and is becoming more frequent in adults as the incidence of primary disease increases in the adult population.^{7,8}

Airway involvement is common in primary tuberculosis and is usually the result of compression of the bronchi by enlarged lymph nodes. Atelectasis may be seen in up to 30% of cases⁵ and predominantly effects the anterior segment of the right upper lobe and the right middle lobe^{4,5} although any segment of lung may be involved (Fig. 3). In some cases the atelectasis may be preceded by obstructive hyperinflation.⁵ Occasionally, the primary focus of disease may be limited to the bronchial mucosa (endobronchial tuberculosis). If bronchial obstruction occurs atelectasis may ensue; however, in some cases the degree of bronchial involvement is not sufficient to produce airway obstruction and the chest radiograph remains normal—the focus of disease being evident only at bronchoscopy.⁴

Pleural effusion occurs in only about 10% of cases of primary tuberculosis in children⁵ but is apparently more common in adults being reported in 20-40% of cases.^{2,4} Pleural effusion may be an isolated finding in primary tuberculosis with no evidence of an associated parenchymal infiltrate (Fig. 4). Pericardial effusion producing an enlarged cardiac silhouette may also occur as a manifestation of primary tuberculosis.

Although transient bacteremia is common in primary



Fig 2: Primary tuberculosis in a 72-year-old male. There is a small parenchymal nodule (single arrow) and a large right paratracheal lymph node (double arrows).

tuberculosis, clinical and radiographic evidence of miliary tuberculosis is seen in only 2-6% of cases.^{2,4} Miliary tuberculosis begins when a focus of tubercle bacilli erode into a blood or lymph vessel, resulting in the embolization of numerous viable organisms to capillary beds in multiple organs.⁹ This event is life-threatening and is characterized clinically by fever, weight loss, prostration and, if untreated, death from respiratory failure and disseminated intravascular coagulation.⁹ Unfortunately, early in the course of disease the chest radiograph may remain normal.⁹ The characteristic radiographic findings consist of diffuse millet seed-sized (miliary) nodules measuring 1-2 mm. in diameter widely distributed throughout both lungs.⁹ Progression to the adult respiratory distress syndrome with diffuse alveolar infiltrates may occur especially in the immunocompromised host.²

Resolution of Primary Tuberculosis: Very few patients with primary tuberculosis have clinical evidence of the disease,⁴ the only evidence being a positive tuberculin skin test. In those with clinical evidence of the disease, resolution is usually complete within six months to two years.⁴ The chest radiograph will return to normal in 68-85% of patients.^{4,5,9} In 15-32% of cases, residual evidence of the primary infection will be radiographically visible.^{4,5,9} The Ranke complex⁴ consists of a parenchymal scar with or without calcification (the Ghon lesion)(Fig. 5) and calcified hilar or paratracheal nodes. Calcification is actually uncommon, occurring



Fig 3: Primary tuberculosis in a 4-year-old female. Right lower lobe collapse (arrows) was produced by compression of the bronchus by enlarged hilar nodes.

in only about 20% of cases;⁹ therefore, radiographic recognition of healed primary tuberculosis is rather uncommon.

Postprimary Tuberculosis: Postprimary tuberculosis is used to describe a clinical and radiographic pattern of disease that correlates pathogenetically with acquired hypersensitivity and immunity.⁴ The vast majority of cases represent reactivation of primary tuberculosis, a minority of cases actually represent a continuation of the primary disease.⁴ Rarely, postprimary tuberculosis is exogenous superinfection on an inactive or even active original infection—true reinfection.⁴

Radiographically, postprimary tuberculosis may show one or more of the following patterns: local exudative tuberculosis, local fibroproductive tuberculosis, cavitation, bronchogenic spread and acute tuberculous pneumonia, miliary tuberculosis, bronchiectasis, bronchostenosis, tuberculoma, tuberculous pleurisy, bronchopleural fistula and/or empyema, calcified fibrothorax, and constrictive pericarditis.^{4,10}

Local exudative tuberculosis represents the early stage of postprimary tuberculosis. This is characterized radiographically by patchy or confluent airspace consolidation which most often involves the apical and posterior segments of an upper lobe or superior segment of a lower lobe⁴ (Fig. 5). Involvement of the right middle lobe, anterior segments of the upper lobes, or basilar segments of the lower lobes is unusual but should not



Fig 4: Primary tuberculosis in an 8-year-old female. Note isolated large right pleural effusion.

be used as evidence against the diagnosis of tuberculosis.^{1,3,11} Increased drainage markings to the ipsilateral hilum may be present; cavitation may also occur.⁴

In local fibroproductive (fibronodular, fibrocalcific) tuberculosis, the exudative lesion is replaced by one or more sharply circumscribed shadows usually irregular and angular in contour⁴ (Fig. 6). Stranding toward the hilum occurs and calcification in one or more of the nodules frequently appears.¹ It is this stage of postprimary tuberculosis which the radiologist often reports as being "old" or "inactive." This is incorrect since many of these patients may be sputum positive. It behooves the radiologist to report fibroproductive tuberculosis as "tuberculosis of indeterminant activity" based upon a single radiographic examination.³ The clinician must then determine the activity of such lesions on the basis of skin testing and sputum examination. Lesions unchanged for six months may be reported as "stable" but may still represent active disease.³ If fibroproductive tuberculosis is of sufficient size, compensatory signs of loss of volume become evident with elevation of the ipsilateral hilum, overinflation of the rest of the lung, and occasionally, bulla formation.⁴

Cavitation is common in postprimary tuberculosis (Fig. 7). When acute, the cavity may be thick-walled with irregular inner margins simulating carcinoma; the cav-



Fig 5: Local exudative tuberculosis (postprimary) in a 36-year-old male. There are confluent infiltrates in the apical and posterior segments of both upper lobes; also note small right pleural effusion (open arrow). A calcified Ghon lesion (arrow) in the left lower lobe is residual evidence of the primary infection.

ities may also be thin-walled with smooth inner margins.^{4,10} Air-fluid levels have been reported as being extremely rare in tuberculous cavities, however, Cohen *et al*¹² have reported air-fluid levels in up to 22% of tuberculous activities (Fig. 7). If the radiograph demonstrates a cavity of moderate size with relatively thick walls seen in most of its circumference (definite cavity) the tissue specimen will almost always confirm the radiographic findings.⁴ However, areas of rounded radiolucency without definitely definable walls present within tuberculous infiltrates (suspicious cavity) will only be confirmed on tissue examination in 50% of cases.⁴ Conventional plain film tomography will demonstrate cavities not suspected from the chest radiograph in 10.7% of cases and will confirm suspicious cavitation in 8.8%. After adequate antituberculous therapy, one or more cavities may remain present indefinitely even though the patient has become culture negative;⁴ therefore, the presence of a cavity does not always indicate active disease.

When caseation necrosis liquefies and empties into the bronchial tree, dissemination of infective material to the same or other lobes may occur (bronchogenic



Fig 6: Local fibroproductive tuberculosis (postprimary) in a 37-year-old male. There are several spiculated, sharply angular nodules in the right upper lobe. This was felt to represent "old, inactive" tuberculosis; however, the patients sputum culture was positive.

spread). Radiographically, this is characterized by the formation of multiple acinar shadows in the same or other lobes, occasionally a confluent air-space consolidation occurs.⁴ The presence of an open cavity in the usual location of postprimary tuberculosis is the clue to the correct diagnosis (Fig. 7).

As in primary tuberculosis, miliary tuberculosis is occasionally seen as a manifestation of postprimary tuberculosis⁴ (Fig. 8). In only about 10% of cases will an apical cavity or exudative lesion be visible as the source of postprimary reactivation.

Tuberculous bronchiectasis may follow active tuberculous infection of the bronchial wall or may be the result of postobstructive pneumonia secondary to bronchial compression or bronchostenosis.^{4,10} Although tu-



Fig 7: Postprimary tuberculosis in a 20-year-old male. There is a large thick-walled cavity in the right upper lobe which contains an air-fluid level (arrow). Note bronchogenic spread with acute tuberculous pneumonia in the right and left lower lobes.

berculous bronchiectasis is usually asymptomatic, hemoptysis may occur.⁴

Following postprimary disease ulceration of the bronchial mucosa may occur, especially in airways draining a cavity. Healing with fibrosis of the bronchial ulceration may result in bronchostenosis with obstructive atelectasis, pneumonitis and bronchiectasis.⁴

A tuberculoma is a round or oval lesion which may be single or multiple.^{3,4} When multiple, they are often misdiagnosed as metastatic disease.³ Tuberculomas typically involve the upper lobes and are more common on the right.⁴ The finding of small fibroproductive nodules near the lesion (satellite nodules) is a clue to the correct diagnosis. Tuberculomas may remain stable for a long time or may show either an increase or decrease in size on serial radiographs. Calcification within tuberculomas is common.⁴ The appearance of a growing tuberculoma or of an ill-defined infiltrate arising from a previously stable tuberculoma should suggest reactivation of disease.

Pleural effusion is not as common in postprimary tuberculosis as it is in primary disease.¹³ Effusion may be associated with a parenchymal exudative or fibroproductive infiltrate (Fig. 5) but is often an isolated finding.¹³ The fluid is rarely bloody; lymphocytes account for more than 70% of the total white cells present.



Fig 8: Miliary tuberculosis in a 27-year-old male with spiking fever and axillary lymphadenopathy. There are diffuse miliary nodules (1-2 mm) in both lungs (A). In B a close-up of the miliary nodules is provided.

A low glucose content (less than 25 mg per 100 ml) and a pH below 7.30 are characteristic.¹³ Unfortunately, the tuberculin skin test is often negative in cases of isolated tuberculous pleural effusion.¹³ Pleural biopsy may show granulomas in 60 to 80% and a positive culture in 55 to 80% of cases; culture of the pleural fluid itself is positive in only 20-25% of cases.¹³ If the effusion becomes chronic it may undergo organization resulting in a fibrothorax. Extensive pleural calcification on the involved side is a frequent associated finding. Although tuberculous empyema is now considered to be rare it does still occur¹³ (Fig. 9); an air-fluid level in the pleural space is an indication of tuberculous bronchopleural fistula.

Constrictive pericarditis may occasionally be tuberculous in etiology. The cardiac silhouette is usually of normal size or slightly enlarged; extensive pericardial calcification is characteristic.

Problems in Diagnosis: Several recent articles have emphasized difficulties in the radiographic diagnosis of pulmonary tuberculosis.^{1,2,3,11} These reports list "unusual" manifestations of tuberculosis occurring predominantly in adults which resulted in delayed, or misdiagnosis of disease. In the majority of cases the radiographic abnormalities were typical of tuberculosis;

what was unusual was that the abnormalities represented primary tuberculosis in the adult population² (Figs. 1 and 2). Radiographic abnormalities of primary tuberculosis in the adult which resulted in confusion included a normal chest radiograph in patients with endobronchial disease, isolated pleural effusion, isolated hilar or mediastinal mass, chronic pneumonia particularly when involving the lower lobes, multifocal infiltrates or mass lesions, and mass-like densities simulating bronchogenic carcinoma.^{1,2,3,10} Familiarity with the radiographic spectrum encountered in primary tuberculosis should improve the diagnosis in the adult population. However, there is little that can be done to radiographically diagnose those patients with endobronchial disease who have a normal chest radiograph.

Although physicians are more familiar with the radiographic manifestations of postprimary tuberculosis, problems in radiographic diagnosis do occur. Minimal exudative or fibroproductive lesions may be entirely overlooked or commonly, fibroproductive lesions may be assumed to be inactive even though the patient subsequently proves to be sputum positive^{1,3} (Fig. 6). Rarely, a patient with postprimary tuberculosis will present with a spontaneous pneumothorax; the apical tuberculous lesion which produced the pneumothorax may be over-



Fig 9: Primary tuberculous pneumonia in the left lower lobe of a 2-year-old child (A). The patient did not complete a full course of antituberculous medication and was lost to follow-up. At age 14 he returned with a postprimary tuberculous empyema (B).

looked or mistakenly interpreted as atelectasis.¹ It has also been reported that miliary tuberculosis may be difficult to recognize radiographically, especially if it is superimposed upon preexisting interstitial fibrosis or diffuse lung disease.¹ Surprisingly, Miller and MacGregor¹ reported several cases of far advanced tuberculosis with extensive upper lobe cavitation in which tuberculosis was not even considered as a diagnostic possibility! Also, it has been reported that patients with tuberculosis may feel symptomatically improved and show partial radiographic resolution of disease when treated with penicillin, resulting in delayed diagnosis.² Again, familiarity with the radiographic manifestations of postprimary tuberculosis should result in a proper diagnosis. All chest radiographs should be searched carefully for minimal tuberculosis; any change compatible with postprimary tuberculosis should be diagnosed as such. Fibroproductive tuberculosis should not be assumed to be inactive based solely upon radiographic grounds. A partial response to penicillin should not be used as evidence against the diagnosis of tuberculosis.

References 1. Miller, WT, MacGregor RR. Tuberculosis: frequency of unusual radiographic findings. *AJR* 1978; 130:867-875. 2. Choyke PL, Sostman HD, Curtis AM, Ravin CE, Chen JTT, Godwin JD, Putnan CE. Adult-onset pulmonary tuberculosis. *Radiology* 1983; 148:357-362. 3. Miller WT. Tuberculosis in the adult. *Postgrad Radiol* 1981; 1:147-167. 4. Fraser RG, Pare JAP. Diagnosis of diseases of the chest Vol. 2, 2nd ed. Philadelphia: Saunders, 1978:731-761. 5. Weber AL, Bird KT, Janower ML. Primary tuberculosis in childhood with particular emphasis on changes affecting the tracheobronchial tree. *AJR* 1968; 103:123-132. 6. Joffe N. Cavitating primary pulmonary tuberculosis in infancy. *Brit J Radiol* 1960; 33:430-439. 7. Amorosa JK, Smith PR, Cohen JR, Ramsey C, Lyons HA. Tuberculous mediastinal lymphadenitis in the adult. *Radiology* 1978; 126:365-368. 8. Liu CI, Fields WR, Shaw CI. Tuberculous mediastinal lymphadenopathy in adults. *Radiology* 1978; 126:369-371. 9. Geppert EF, Leff A. The pathogenesis of pulmonary and miliary tuberculosis. *Arch Intern Med* 1979; 139:1381-1383. 10. Jacobson HG, Shapiro JH. Pulmonary tuberculosis. *Radiol Clin North Am* 1963; 1:411-427. 11. Lian CF, Robinson AE. Atypical radiographic appearance and clinical presentation of pulmonary tuberculosis. *Southern Med J* 1976; 69:1317-1322. 12. Cohen JR, Amorosa JK, Smith PR. The air-fluid level in cavitary pulmonary tuberculosis. *Radiology* 1978; 127:315-316. 13. Fraser RG, Pare JAP. Diagnosis of diseases of the chest Vol. 3, 2nd ed. Philadelphia: Saunders, 1979:1749-1750.

From the Department of Diagnostic Radiology, Albert B. Chandler Medical Center, University of Kentucky, 800 Rose Street, Lexington, Kentucky 40536-0084

as one physician
to another. . .



**“Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?”**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company • P.O. Box 35880 Louisville, Ky. 40232

TOLL FREE 1-800-292-1858 • Louisville Area 459-3400

Grand Rounds

Antibiotic-Impregnated Beads in Orthopedic Infectious Problems

DAVID SELIGSON, M.D.

Antibiotic-impregnated, poly-methyl methacrylate beads are commonly used in some countries for the prevention and treatment of bone and soft-tissue infections. This paper will report on the rationale for their use and describe a personal clinical impression of the potential usefulness of this concept. The beads are made by mixing tobramycin antibiotic powder with poly-methyl methacrylate bone cement during the curing process. Preliminary investigation in the laboratory demonstrates that the antibiotic leaching characteristics of these beads are probably sufficient to give a clinical effect. The potential impact of this concept is discussed.

Infection following compound fracture, particularly of the tibia shaft, is a problem that has plagued man since antiquity. A classic Chinese treatment for osteomyelitis was the implantation of small pieces of wood in the necrotic bone cavity. The wood was then set on fire. The Roman, Celsus, pressed a red hot iron on infected bone and recommended drilling and debridement to effect a cure. By contrast, Hippocrates believed that necrotic bone should be allowed to slough. Dry versus wet treatment remains a controversy today. In 1266, Theodrich advised wine compresses and Henri de Mondeville prescribed continuous irrigation with spring water. Parenthetically, Theodrich also recommended wine as a systemic stimulant for the patient. Amputation was still the mainstay of treatment, particularly in war. Two Americans, Hamilton and Senn,

practiced the placement of foreign bodies into bone defects after cleansing to aid union. Hamilton used pieces of sea sponge, and Senn prepared tubes of drilled cow bone.

The principles for preventing and treating osteomyelitis by meticulous removal of all dead tissue and continuous cleansing with antiseptic solution were established by Dakin and Carrel working with the Allied forces in the First World War. The additional problems posed by nonunion include the need to stop interfragmental motion at the fracture site and often, the requirement to augment bone healing particularly when the debridement results in a loss of bone substance.¹

So-called "bone cement" is a self-curing, acrylic material well-tolerated in the body and first used by neurological surgeons to fill skull defects, resulting from craniotomies. It is commonly used in orthopedics as a grouting substance in total joint replacement. In 1970, Buchholz of Germany conceived of the idea of mixing antibiotic into the powder polymer catalyst. Liquid monomer is then mixed into the catalyst to form a dough-like lump, which is shaped by the surgeon in the operating room and placed in a bone cavity where curing is completed. Antibiotics weaken the strength of cement, a controversial tissue in joint replacement surgery.

The idea of antibiotic-containing space fillers for osteomyelitis is not new. In 1928, Petrova² added the antiseptics, kaolin and rivanol, to plaster of Paris. Kovacevic³ in 1953 put plaster of Paris cylinders, impregnated with penicillin and sulfonamide into three patients with osteomyelitis. Following the lead of Buch-



Fig. 1A: Forearm in external fixateur with beads in place.
Fig. 1B: At the time of bead excision.

holz, Klaus Klemm of Frankfurt, Germany first used solid PMMA antibiotic plugs. Then working with Wahlig of the Merck Company, Klemm developed a commercial product consisting of round PMMA beads containing antibiotic on a steel chain for local antibiotic prophylaxis and treatment. While conducting extensive studies with their beads first in dogs and then in humans, Klemm and Whalig^{3,4} demonstrated a slow release of antibiotic from the beads with appreciable tissue concentrations and safe systemic levels. This material will most likely undergo clinical trial in the United States in the next few years in accordance with FDA regulations. In the meantime, there have been reports of the use of antibiotic in cement for hip replacement and the addition of antibiotics to plaster of Paris for osteomyelitis.^{5,6} American orthopedists are adding antibiotics to bone cement with increasing frequency. This paper presents clinical information about the use of beads and a laboratory study of the antibiotic-leaching characteristics of handmade beads. This author is indebted to Dr. Klaus Klemm for introducing him to many of these ideas.



Fig. 2: Radiograph following debridement and placement of tobramycin PMMA beads.

Clinical Methods

Antibiotic-impregnated beads can be used for treatment or prevention of bone and soft-tissue infection, particularly in the extremities.^{7,8} The first step in the management of established bone infection with PMMA beads is thorough debridement of soft tissue and bone to surgically clean, briskly bleeding margins. Without exception, loose metallic and other foreign implants must be removed. Complete bacterial cultures should be obtained from the depths of the wound. Organisms obtained from surface drainage may not be representative of the flora in the depths of an osteomyelitic cavity. If pseudarthrosis is present, interfragmental motion must be reduced, often through the application of an external fixateur. If a marked inflammatory reaction is present, particularly with suppuration, the wound is packed open and redebrided after a few days as in the open method of treatment. Either at the first procedure, or when a surgically clean cavity can be obtained, chains of PMMA beads are used to fill the cavity in bone and soft tissue. **The wound is closed.** This is the fundamental difference in the use of PMMA antibiotic chains: it is a technique for the closed treatment of infection,



Fig. 3: Radiograph following debridement of hematoma, placement of beads, and percutaneous stabilization with Enders' pins.

as opposed to the open. Depending on the size and location of the cavity, a chain of beads can be left entirely buried in bone, or a few beads can be brought through the skin. The beads undergo encapsulation with fibrous tissue so that protruding beads are removed from 7-10 days after their insertion. Beads are left in the depths of a bone cavity and then excised when the wound is entirely healed. This cavity can then be filled with cancellous bone graft or a free-tissue transfer to achieve union.

For example, Figure 1A shows the forearm of a patient with an infected plate osteosynthesis after debridement and placement of several antibiotic PMMA chains. The chain protruding through the wound was removed in the office about a week after the initial debridement. Four weeks later the entire cavity was re-explored, and the remaining chains excised (Fig. 1B). The cavity was then bone grafted, and union took place. Systemic antibiotic coverage begins at the time of initial debridement. A drain is placed in the wound but not hooked up to suction until after the first postoperative day. Parenteral antibiotics are continued until the inflammatory reaction subsides, usually three-five days after surgery. The patient takes oral antibiotics as do all my patients in fixateurs.

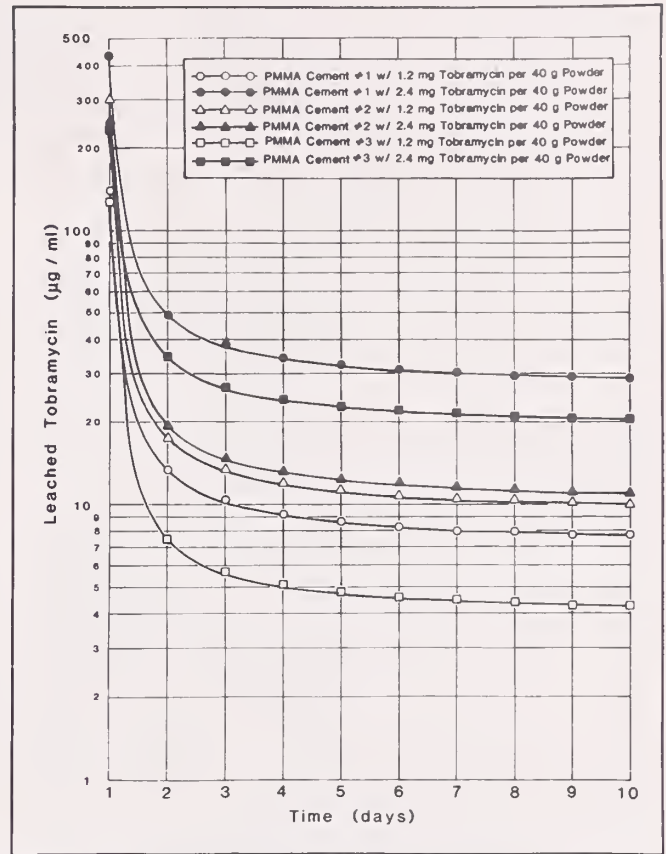


Fig. 4: Tobramycin leaching from 6.3 mm dia. PMMA beads.

With severe, established infections, pus may reaccumulate in the bead-filled space. There does not seem to be as much inflammatory reaction to these collections as there was to the initial infection. I have observed this reaction in three cases, and in each instance, the patient was promptly returned to the operating room, the cavity redebrided, new chains put in place, and the infection controlled. The major reasons for failure in the use of this method are organisms resistant to the antibiotic (tobramycin or gentamycin) incorporated in the bead, inadequate debridement often with failure to remove all implants, and persistent inter-fragmental motion.

Antibiotic PMMA beads can also be used when early infection is detected after fracture fixation. This situation is particularly threatening since the bone is not healed, and removal of implants will result in loss of stability. If infection is detected before there is evidence of bone destruction, and before there is established abscess formation and drainage, the patient can be admitted, the wound debrided, the bone plate checked to be certain it is not loose, and antibiotic beads installed. The patient in Figure 2 had plate fixation of a tibia shaft fracture. The wound was red, swollen and

GRAND ROUNDS

angry. At the time of debridement the plate screws were found to be tight and the fracture site stable. Beads were installed, and the wound healed. In more extensive cavities, Klemm recounts that he is able to leave beads in place and remove them at the time of plate removal when the fracture is healed.

Antibiotic-impregnated beads can also be used for prophylaxis against infection. These beads can be placed in the depths of wounds after debridement and removed several days later at the time of re-debridement and definitive stabilization. The problem of loss of soft-tissue coverage associated with compound fracture will require further study to determine the role and method of application of beads in the acute phase of care.

The patient shown in Figure 3 had an open biopsy of a metaphyseal lesion in the proximal tibia, which turned out to be a leukemic deposit. A large postoperative hematoma accumulated, and he had increasing pain on using the leg. The wound was re-explored, and closed over tobramycin PMMA beads. The tibia was stabilized with Enders' pins to prevent fracture through the biopsy site. Wound cultures were negative, and the beads were removed percutaneously.

Laboratory Investigations

The elution of various antibiotics from blocks of bone cement and the antibacterial activity of filter paper discs co-incubated with antibiotic-containing PMMA beads in phosphate buffer has been reported.⁹ Gentamycin has been the most extensively studied antibiotic, but any heat-stable compound can be used. Silver salts have also been shown to be effective when incorporated in bone cement in preventing osteomyelitis in a rabbit model.¹⁰ Tissue, serum, urine and wound drainage have been studied for gentamycin content after implantation of gentamycin-impregnated PMMA in both animals and man. Local concentrations of gentamycin, well in excess of the usual therapeutic level of 6-8 µg/ml, are regularly achieved and maintained for five to 10 days with low measurable, nontoxic, systemic levels. The greatest release of antibiotic is obtained when the bead is first placed into solution.¹¹ This release seems to depend on bead surface size and surface characteristics.

Research was carried out in our laboratory to determine the antibiotic-release characteristics of beads made by handmixing tobramycin powder with commonly available PMMA bone cements. The results are shown in Figure 4. As with the commercial gentamycin PMMA chains, the highest levels of antibiotic are seen ini-

tially. This is the rationale for avoiding active drainage of the operative wound hematoma since this hematoma theoretically contains the highest levels of antibiotic.

Discussion

Attitudes toward treating fractures in North America are rapidly changing. This change has been nurtured by reports of improved results with diminished patient morbidity from European centers, which have accumulated impressive documentation of the results of their methods. Extensive training courses, sponsored by implant manufacturers, have made operative techniques of fracture fixation easily available to surgeons in practice. Interest in vigorous, active mobilization with the possibility of shortened hospital stays will only be fueled by current political involvement in health care costs. An increased incidence of infected cases will most likely follow as the numbers of operative procedures for broken bones grow.

The role of parenteral antibiotics in preventing and curing infection in bone is unclear.¹² Tremendous prospective studies would be required to show even small advantages. Musculoskeletal tissues in the extremities have low perfusion compared to more vascular areas; injury and inflammation make the situation worse. Alternatives to long hospitalization for the intravenous administration of antibiotic would reduce the physical and psychological morbidity associated with bone infection.

When considering the spectrum of organisms responsible for osteomyelitis, fully 60-80% of the organisms in most series are *Staphylococcus aureus*. Of these, about 80% are sensitive to aminoglycosides. "Sensitivity" and "resistance" are often defined at a minimum inhibitory concentration (MIC) level of 4 µg/ml which can be achieved with intravenous administration of 2 mg/kg doses. Leaving aside the mortifying problem of the selection of certain strains of *S. aureus* with MIC values in excess of 128 µg/ml, many organisms currently considered to be "resistant" would be "sensitive" if drug delivery thresholds could be raised. This is the essential strategy of the use of a local antibiotic-releasing vehicle, such as a PMMA bead.¹³ The concept of local drug release is being actively considered for such diverse problems as diabetes and birth control.

Yet, it is not clear that the antibiotic beads rather than meticulous surgical technique are responsible for the reported clinical results. The stakes are high; parenteral therapy for bone infection currently costs about

GRAND ROUNDS

\$16,000 for a conventional four to six week course of intravenous antibiotics. Short hospital stays and outpatient treatment with antibiotic chains would cost one-fourth as much with markedly less patient morbidity. Clinical trials of commercially manufactured beads should begin shortly and will be watched with interest. Difficulties in case matching make it probable that these trials will only demonstrate the safety of the product when properly used.

In my opinion, a proper laboratory model of post-traumatic osteomyelitis needs to be developed. Then, a truly scientific, blinded study could be undertaken to determine the effect of antibiotic PMMA beads as compared to parenteral therapy. There is a friendly and continuous exchange of information and ideas between the group in the Price Surgical Laboratory at the University of Louisville and Klemm's group in West Germany about this exciting area of therapeutics.

References 1. Burri C: Post-traumatic osteomyelitis. Bern: Hans Huber Publishers, 1975, pp 11–17. 2. Petrowa A: Zur frage der gipsfullung von knochenhohlen bei osteomyelitis. *Zentralblatt fur Chirurgie* 55:2219, 1928. 3. Kovacevic B: Ein beitrag zum problem der hamatogenen osteomyelitis. *Archiv fur Klinische Chirurgie* 276:432–443, 1953. 4. Klemm K: Septopal®—a new way of local antibiotic therapy. In van Rens TJG, Kayser FH, (Eds). *Local Antibiotic Treatment in Osteomyelitis and Soft-Tissue Infections*. Amsterdam: Excerpta Medica, 1981, pp 24–37. 5. Mackey K, Varlet A, Debeaumont D: Antibiotic loaded plaster of Paris pellets: An *in vitro* study of a possible method of local antibiotic

therapy in bone infection. *Clin Orthop* 167:263–268, 1982. 6. Soto-Hall R, Saenz L, Tavernetti R, Cabaud HE, Cochran TP: Tobramycin in bone cement. An in-depth analysis of wound, serum and urine concentrations in patients undergoing total hip revision arthroplasty. *Clin Orthop* 175:60–64, 1983. 7. Jenny G, Taglang G: Clinical experiences with the use of gentamicin-PMMA beads and chains in 200 cases of bone and soft-tissue infections; early and late follow-up results. In van Rens TJG, Kayser FH, (Eds). *Local antibiotic Treatment in Osteomyelitis and Soft-Tissue Infections*. Amsterdam: Excerpta Medica, 1981, pp 112–126. 8. Grieben A: Treatment of bone and soft-tissue infections with gentamicin-poly-methyl-methacrylate chains. *SA Med J* pp 395–397, September 5, 1981. 9. Wahlig H, Digneldein E: Antibiotics and bone cements. *Acta Orthop Scand* 51:49–56, 1980. 10. Dueland R, Spadaro JA, Rahn BA: Silver antibacterial bone cement. Comparison with gentamicin in experimental osteomyelitis. *Clin Orthop* 169:264–268, 1982. 11. Wahlig H, Dingeldein E, Bergmann R, Reuss K: The release of gentamicin from polymethylmethacrylate beads. *J Bone Joint Surg* 60:270–275, 1978. 12. Galland RB: Systemic antibiotics. In Polk HC Jr, (Ed). *Infection and the Surgical Patient*. Edinburgh: Churchill Livingstone, 1982, pp 72–90. 13. Kayser FH, Eberle H: Bacteriological aspects of chronic posttraumatic osteomyelitis. In van Rens TJG, Kayser FH, (Eds). *Local Antibiotic Treatment in Osteomyelitis and Soft-Tissue Infections*. Amsterdam: Excerpta Medica, 1981, pp 1–7.

From the Division of Orthopedic Surgery and the Price Institute of Surgical Research, the Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky. Reprint requests to: David Seligson, M.D., Kosair Professor of Orthopedic Surgery, Department of Surgery, Ambulatory Care Building, University of Louisville, Louisville, KY 40292. Funded in part by a grant from Eli Lilly, Co., Indianapolis, IN

easy to take



250-mg Pulvules®



Oral Suspension

250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes



Pediatric Drops

100 mg/ml
10-ml size

Keflex®

cephalexin

Additional information available
to the profession on request.



000823

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

EDITORIAL

New Kids on the Block

Pre-admission authorization and DRG's are here or soon will be. These two new kids promise to save money in the ever burgeoning cost of medical care. They will save money. No question about that. However, they bode ill to hospitals, physicians and patients.

Take for example the Blue Cross/Blue Shield contract for employees of the State of Kentucky which requires certain surgical procedures to be done on an out-patient bases. What primarily comes to mind are T & A's and hernia repair, to mention but two. Surgeons are hesitant, if not reluctant to do these operations as out-patient surgery. Not because of problems with technique or anesthesia, but fear of potential complications in the immediate post-operative period. Sending a child home immediately following a tonsilectomy, with risks of airway obstruction or occult bleeding are dangers which most ENT specialists are loathe to accept. Sending an adult patient home in pain following a herniorrhaphy is one thing. But for that same patient to have acute urinary retention at two o'clock in the morning is something else.

Authorized lengths of stay promises to be another boondoggle. If ample hospital stays are allowed and extended if complications arise, then I foresee no problems. Should adverse determination be made on sick patients by third parties by telephone, then I predict an avalanche of complications, misdiagnoses, missed diagnoses, unwarranted deaths, disgruntled families and litigations the like of which would make Scylla and Charybdis seem like a pebble and a pond by comparison.

In a classic case in California this year, a patient with severe peripheral arterial disease received an adverse determination and was discharged from the hospital by the attending physician against his wishes and better judgement. Shortly after this, an amputation and lawsuit followed. The suit was not against the insurance carrier, the state government or hospital but against the physician. The plaintiff argued that he did not have to be discharged because of the adverse determination. They further argued that the patient could have stayed and allowed the hospital and physicians to absorb the loss. Some Great Society!

More and greater ominous signs are on the horizon. In a recent special issue of the "Communicator" published by the Kentucky Medical Association, I note some chilling proposals by the House Ways and Means Committee. Three major measures proposed would force physicians to accept assignment, freeze physicians charges to hospital inpatient for six months and require hospitals to enforce physician participation and acceptance of assignment as a condition of admitting privileges. While these three provisions are serious, the final clincher would enforce criminal penalties against physicians who fail to comply. Some Great Society!

DRG payments are moving in down the block. Not here yet, but close. They too are geared to save money, and prod both hospital and doctor to be more cost conscious and efficient. Well and good. No argument with that. But if DRG's create conflict between patient and doctor and friction between doctor and hospital, then not so well and not so good.

I applaud my government's efforts to economize. Let them ferret out the Medicaid, Medicare and Welfare frauds. Let them search and destroy industries that have defense contracts who vastly overcharge for parts worth only a few pennies.

The plea we make is for the patient. I hope the patient is not the one to suffer during this retrenchment. I would hope during these times of change and revision doctors continue to uphold tradition and show critics, patients and government the kind of stuff of which we are made.

Milton F. Miller, M.D.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITIES

ABIM solo internist in beautiful college town, seeks general internist or subspecialist to join him in July of 1984. Please send resume to: Bennet D. Cecil, M.D., 307 W. Broadway, Danville, Kentucky 40122.

Wanted — Family Physician to join 2 physician family practice in western Kentucky town of 8,000. Fully equipped modern office located next to 60 bed hospital. Send resume to: Ralph Cash, Jr., M.D., P. O. Box 627, Princeton, Kentucky 42445

Part-time private practice opportunity for psychiatrist through affiliation with clinical psychologist. Established clinical practice in multi-county catchment area within commuting distance of Knoxville, Lexington, Ashland. Inquires to J. Petrey, Rt. 1 Box 474, Lawrenceburg, Kentucky 40342

RAPIDLY EXPANDING REGIONAL EMERGENCY SERVICES AND PHYSICIAN PLACEMENT GROUP, under the direction of Paul T. Brizendine, M.D., is seeking career emergency physicians and primary care specialists for both group and private practice. Rewarding opportunities in hospital-based full-service emergency departments, acute care centers and private practice throughout Kentucky. Excellent compensation and incentives. Phone or mail CV to: Medical Associates, Inc., Director, Physician Resources, P. O. Box 729, Louisa, KY 41230, (606) 638-1832

FOR SALE

Medical equipment for sale: exam rooms, x-ray, lab, general office equipment. Financing available. Call (606) 269-1668.

For Sale: Lucrative psychiatric practice and office equipment. Newburg Road, Louisville, Kentucky 40205 (502) 896-8315

A WORD TO THE WHYS

WHY AMA?

Residents and medical students now have a strong voice in organized medicine. Through the Resident Physician Section and the Medical Student Section, these two groups participate in the policy making process of the AMA and communicate their concerns. Developing future leadership in organized medicine: it's one more good reason why you should be a part of the AMA.

To Join, Contact your county or state medical society or write: Division of Membership, AMA, 535 North Dearborn Street, Chicago, Illinois 60610 or call collect, (312) 751-6196.

WHY AMA? The AMA can help you build and improve the efficiency of your practice through Practice Management seminars and audio visual courses. These programs are designed to assist you in every phase of your practice by providing you with practical information about business procedures and management techniques. Practice Management: it's one more good reason why you should be part of the AMA.



A special practice for specialists

If you're a surgeon or OB/GYN or other medical specialist, the Air Force may have a special practice for you.

What makes it special? You'll enjoy an excellent pay and benefits package. Your regular working hours will allow you to spend more time with your family. You'll receive 30 days of vacation with pay each year. And you will work with modern equipment and some of the most highly trained professionals in the world, serving your country and your patients. Now that's special!

**Find out just how special
your practice can be.**

Contact:

TSGT PETE HONAKER
701 W. Muhammed Ali Blvd.
Louisville, KY 40203
Call 502-582-5727 Collect



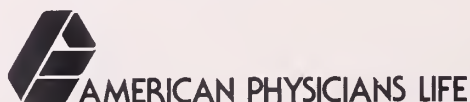
“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

**Endorsed by the
Kentucky Medical Association**



AMERICAN PHYSICIANS LIFE
Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

Book Reviews

Basic & Clinical Endocrinology

F. S. Greenspan and P. H. Forsham

Lange Medical Publication, 1983, 646 pages

This inaugural edition is an excellent overview of clinical endocrinology. Richly illustrated, graphed and tabled, the book tackles the nimble field with a grasp that is oriented to the medical student, resident, practicing physician and reviewer.

Biochemical jargon and principles begin the book's contents followed by prostaglandins and cyclic nucleotide material, a challenging and curious beginning. With the subsequent neuroendocrinology and pituitary chapters, the reader has started out climbing the "Everest" of endocrinology from the onset. X-rays in these sections are particularly blurred, a weakness throughout the book. Long biochemical sequencing occupies pages of text, where reference to a source or miniaturization would have sufficed.

There is no way to order such a field which maintains relationships with every body organ and metabolic process. Each aspect of endocrinology is presented in a uniform fashion, its bio- and physiochemistry first, pathology and therapeutic possibilities next.

A useful and contemporary chapter on hormones and cancer is included, not typical of endocrinology texts. In addition ectopic hormone production is well presented and very useful in differential diagnosis.

Endocrinology is a particularly fickle field, changing its explanations and substituting its characters in short intervals. Review with such a handy text will be worthwhile.

Handbook of Dermatologic Treatment

R. Kenneth Landow, MD

Jones Medical Publications, 1983, 219 pages

"Pearls"—medical jargon for those pithy suggestions which seem so useful and unforgettable. Dermatological diseases segregated into many areas, indexed briefly but accurately described and finally served up with excellent therapeutic suggestions. Wearing the ecumenical mantel, Landow is not afraid to intermarry the idealized topical steroids with the scarlet x-ray therapy. His contemporary modalities seem mainlined from very current dermatological literature.

Criticism is justified for several things. Unbelievably, nail disorders are brusquely treated, despite their

almost universal occurrence and frequency of precipitating office visits. Tumor therapy is discussed too briefly for the reader to be comfortable in initiating, while whetting his appetite. In fact, such terms as "scooping out" are a skewed description of several types of ablative procedures. Obscure disorders of histiocytosis, acrodermatitis enteropathica, etc. are delegated space equivalent to more common and therefore relevant issues. Nevertheless, this book is delectable for the clinician and almost therapeutically encyclopedic for the student.

Handbook of Pediatrics

H. K. Silver, C. Henry Kempe and
Henry B. Bruyn

Lange Medical Publications, 1983

Somehow a handbook that fits into the hand comfortably can't be criticized!! This new Handbook of Pediatrics, like its 13 predecessors is a tribute to condensation without abandonment. True it is that some subjects are given short shrift but only in proportion to either their rarity or their misfit into a generalized pediatric clinical overview. Despite the authors declaration that they mean no malice to the more comprehensive and larger texts, they seem unwilling to dispense with the first 50 pages of introductory material that could be gotten elsewhere. Portability and conciseness make this book useful as a frontline manual and this should mean the deletion of introductions. Emotional problems as a chapter should be abandoned by such reasoning and

because of unavoidable simplistic conclusions by the authors about multifactorial problems, not a handbook matter. Likewise adolescent medicine, the label given to medical problems of the transition years, is germane in each part already discussed in the book. It is trendy to have such a chapter, but a handbook has such precious space.

No illustrations and a few tables are all that interrupt a monotonous but excellent review of systems, metabolism, toxins and procedures of which pediatric practice is constructed. Back and front covers contribute even more data on measurements.

To the spectrum of medical personnel this handbook will be useful.

Current Surgical Diagnosis & Treatment, 6th Edition

Lawrence W. Way

Lange Medical, 1983

This famous and popular surgical paperback mini text has new stewardship with the passing of J. Englebert Dunphy, its originator. Still the faculty at the University of California San Francisco, both surgical and medical, dominate the contributors, thus maintaining a degree of continuity. Nevertheless this is a worthwhile acquisition for its contemporary overview and bibliography. There are nice tables, excellent drawings, diagrams galore which are additive. X-rays are blurred and redundant and should be excised from the text. The few graphs are unnecessary but acceptable.

Accepting legal intrusion as inevitable, the authors insert a chapter on the conduct of a surgeon as it per-

tains to such matters—a sad commentary to our present dilemma with the courts.

Part one is the usual teaching of surgical care, technique, *etc.* Then each organ system is discussed in detail, anatomy, physiology, diseases and treatment germane to that region.

At times with redundancy the final one third of the book has each specialty discuss its realm with the obvious and sometimes annoying overlap. After at least 1,200 pages the reader might appreciate less repetition.

A transitional text, too long for the hand or pocket, too superficial for the serious student, this book may be represented as a useful tome for those of us who wish such a book.


Journal of the Kentucky Medical Association

Learning to Live with Osteoarthritis

Medicine in the Public Interest, 1983, 62 pages

Here is one of those information pamphlet books packed with readable information yet with a good motive of making the arthritic life easier. Diagnosis, management, "the hints" — all are included. This is a good book for the professional and for the patient.

Stephen Z. Smith, M.D.
Assistant Scientific Editor



THERE ARE MANY WAYS TO SAY IT BUT, MOSTLY, WE WANTED TO SAY
"THANKS"!

A.P.L. A.P. LEE AGENCY, INC.

Specialists in group disability programs

Bud Ernst *Judy Parker*

"A company by physicians for physicians"

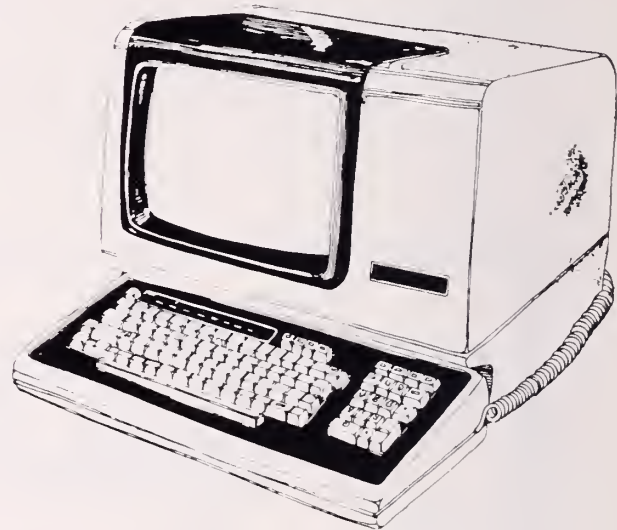


Kentucky Medical Management & Computer Operations

"The newest subsidiary of KMA Physicians Services, Inc. is pleased to announce the availability of the following services:"

Computer Services

- select from IBM, DEC or TeleVideo Hardware
- full range of systems from PC to large mini computers to handle any size medical practice
- systems capable of handling medical office automation, word processing, direct communications with other computers and hundreds of other prewritten programs
- extensive training for staff
- full hardware and software support
- financing available at or lower than commercial rates
- statewide support
- discounted supplies and equipment to KMA members
- bids available upon request



Practice Management Services

- Consulting — 3 types available. Priced to meet the needs of the individual, group or clinic practice.
- Workshops — computer utilization and practice management programs for physicians and their staffs.

For Additional Information Contact:

KMCO

3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-9790

LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532

Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

During our 1983 Kentucky Medical Association session the elected officials of the society chose to elevate the annual society dues from \$225.00 per annum—to \$300.00 per annum. The predominant reasons put out by our elected officers were: (1) inflation, (2) have not had a dues increase in a great number of years, (3) our dues are lower than neighbor states, (4) trust us, we need the money.

The dues received next year will be well over one million dollars. To me this still represents a large amount. Medical politicians are much like other politicians they spend what there is to spend \$100, or \$1000, or all.

I feel that in the computer age, the budget per year or years and the projected expenditures should be published from year to year, where the average dues paying member will have access to this material. It need not be a secret society.

Clifton E. Lowry, M.D.
Owensboro, KY.

Editors Note:

The House of Delegates commended the Secretary-Treasurer in keeping the dues level stable for eight years instead of the five years which were projected. The increase will still not generate a dues level of one million dollars. The Secretary-Treasurer's report is presented annually in the *Journal* noting the availability of the auditor's report of the Association's finances.

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA



**FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY**

YOUR FIRST STEP TO FIRST QUALITY PROTECTION

CONTACT FIELD REPRESENTATIVES

Louisville Office

DONALD G. GREENO

400 Sherburn Lane, Suite 104,
Louisville, Kentucky 40207
(502) 895-5501

Lexington Office

CHARLES E. FOREE

Suite 103B, 152 East Reynolds Road
Lexington, Kentucky 40503
(606) 272-9124

ASSOCIATION

Kempac Board of Directors Officers Elected For 1983-1984



Harvey A. Page, MD
Assistant Treasurer

1st Congressional District

James S. Brashear, M.D. / Box 469, Central City, KY 42330; John D. Noonan, M.D. / 2018 Broadway, Paducah, KY 42001

2nd Congressional District

M. A. Douglass, Jr., M.D. / Magnolia, KY 42757; Francis Halcomb, M.D. / 217 W. Main St., Scottsville, KY 42164

3rd Congressional District

K. Thomas Reichard, M.D. / Suite 7A Suburban Medical Plaza, Louisville, KY 40204; Walter H. Zukof, M.D. / 7512 Old Shepherdsville Road, Louisville, KY 40219



John D. Noonan, MD
Treasurer

4th Congressional District

Raymond Timmerman, M.D. / 800 Alexandria Pike, Ft. Thomas, KY 41075
Thomas R. Watson, M.D. / Suburban Medical Plaza, Louisville, KY 40207

5th Congressional District

Harold Bushey, M.D. / 406 Knox Street, Barbourville, KY 40906; Carmel Wallace, Jr., M.D. / 373 Bold Ruler Trail, Corbin, KY 40701

6th Congressional District

(One vacancy)

William P. McElwain, M.D. / Scholfield Lane, Frankfort, KY 40601



James S. Brashear, MD
Chairman

7th Congressional District

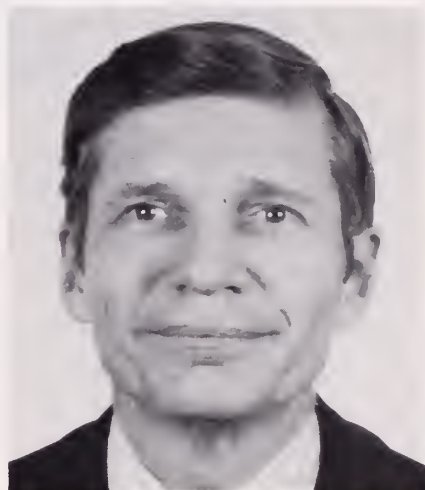
Paul E. Lett, M.D. / 4551 Brenda Drive, Ashland, KY 41101; Harvey A. Page, M.D. / Pikeville Medical Clinic, Pikeville, KY 41501

Represent Auxiliary to KMA

Mrs. James W. Davis (Barbara) / 1604 Sylvan Way, Louisville, KY 40205; Mrs. Wally O. Montgomery (Gerry) / 3690 Marlborough Way, Paducah, KY 42001; Mrs. Russell Lee Travis (Sara Gail) / 744 Cottage Grove Lane, Lexington, KY 40502
(One vacancy)

Exofficio Members

Donald C. Barton, M.D. / 1014 Circle Dr., Corbin, KY 40701; Carl Cooper, Jr., M.D. / Bedford, KY 40006; Hoyt D. Gardner, M.D. / Suite 304, Baptist East Doctors Bldg., Louisville, KY 40207; John W. Harrison, M.D. / Rt. 4, Box 93, Ashland, KY 41101; Wally O. Montgomery, M.D. / 3690 Marlborough Way, Paducah, KY 42001; John C. Quertermous, M.D. / 205 Eighth St., Murray, KY 42071; C. Kenneth Peters, M.D. / 1911 Hurstbourne Circle, Louisville, KY 40220; Fred C. Rainey, M.D. / 912 Woodland Drive, Elizabethtown, KY 42701



Raymond J. Timmerman, MD
Vice Chairman



Barbara Davis
Secretary

General Leasing
Company of Kentucky

Professional Transportation Management

We administer your
physician's lease plan.

We lease all makes —
everywhere.



121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383



EMERGENCY MEDICINE

part-time, full-time and locum tenens positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (12-60 hour shifts). For details write or call:

Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214
1-800-848-2938 / 614-457-9761

All inquiries will be kept in confidence.

BRIEF SUMMARY PROCARDIA® CAPSULES (nifedipine)

For Oral Use

INDICATIONS AND USAGE: I. **Vasospastic Angina:** PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. **Chronic Stable Angina (Classical Effort-Associated Angina):** PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: **Excessive Hypotension:** Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients, usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: **General:** **Hypotension:** Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug interactions: Beta-adrenergic blocking agents. (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates. PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Digitalis: Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility: When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy: Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianginal medication. Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request.

© 1982, Pfizer Inc.



LABORATORIES DIVISION
PFIZER INC.

*"I can do things that I
couldn't do for 3 yrs. including
joining the human race again."*



*"My daily routine consisted of
sitting in my chair trying to stay alive."*

*"My doctor switched me to
PROCARDIA[*] as soon as it became
available. The change in my condition
is remarkable."*

*"I shop, cook and can plant
flowers again."*

*"I have been able to do volunteer
work...and feel needed and useful
once again."*

PROCARDIA can mean the return to a more normal life
for your patients—having fewer anginal attacks,¹ taking
fewer nitroglycerin tablets,² doing more, and being more
productive once again.

Side effects are usually mild (most frequently reported
are dizziness or lightheadedness, peripheral edema,
nausea, weakness, headache and flushing, each occurring
in about 10% of patients, transient hypotension in about
5%, palpitation in about 2% and syncope in about 0.5%).



for the varied faces of angina

PROCARDIA[®]
(NIFEDIPINE) Capsules 10 mg

*Procardia is indicated for the management of:

- 1) Confirmed vasospastic angina.
- 2) Angina where the clinical presentation suggests a possible vasospastic component.
- 3) Chronic stable angina without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or nitrates or who cannot tolerate these agents. In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks' duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Please see PROCARDIA brief summary on adjoining page.

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

Upjohn

G. Douglas Sutherland Elected President of Blue Cross and Blue Shield of Kentucky



G. Douglas Sutherland

G. Douglas Sutherland has been elected president of Blue Cross and Blue Shield of Kentucky by the health care prepayment organization's Board of Directors. Sutherland, a native of Kentucky, has been with the Plan since 1960.

In his role as president, Sutherland will serve as the Plan's Chief Executive Officer, overseeing the day-to-day operations of the billion-dollar corporation. Blue Cross and Blue Shield of Kentucky currently processes more than six million health care claims annually. In addition to nearly 1.4 million members throughout the Commonwealth, the Plan also processes Medicare claims within Kentucky on behalf of the federal government.

Sutherland becomes the fifth president in the Plan's 45-year history. He began his Blue Cross and Blue Shield career as an enrollment representative in the Plan's Bowling Green District Office. In 1965 he became a Provider and Professional Relations representative and two years later was named director of that division. In 1971 he was named vice president of External Operations and in 1974 became the Plan's Chief Marketing Executive. In December 1977 Sutherland was elected senior vice president in charge of Marketing, Provider and Professional Affairs, Corporate Communications, Claims Audit, Utilization Review, Legislative Relations and Human Resources. Sutherland was elected executive vice president of the Plan in July 1983.

A native of Woodford County and a 1958 graduate of the University of Kentucky, Sutherland served as president of the Kentucky Jaycees in 1966 and vice president of the U.S. Jaycees in 1967. Sutherland has served as a director of the Kentucky Chamber of Commerce, is a member of the Louisville Rotary Club and is on the Board of Directors of the National Society to Prevent Blindness-Kentucky.

NEWS

A number of important issues were considered by the House of Delegates at its session in September. The full Digest of Proceedings of all House actions was published in the December issue of the *KMA Journal*, but several matters were felt to be of sufficient importance that it was decided to highlight them in this issue.

Kentucky Medical Assistance Program

The House of Delegates adopted Resolution L, relating to the Kentucky Medical Assistance Program, which addressed the general dissatisfaction of physicians with several recent, as well as ongoing, changes. The most significant portions of the Resolution stated that KMA can no longer support the current operation of Medicaid, nor can it encourage its members to participate in the Program, which has become clearly detrimental to the welfare of the indigent. Likewise, each member is encouraged to consider his or her relationship with the Program to determine the individual method of fulfilling the medical obligation to the indigent.

These actions were taken because of continuing funding cutbacks, which restricted access to in-hospital care by Medicaid recipients, and could result in a complete lack of availability of care. The Resolution also directed KMA to seek to promote adequate financing of primary medical services before new or nonmedical services are implemented. Finally, KMA was directed to assist members in educating patients and citizens about the many shortcomings of KMAP.

Medicare/Medicaid Preauthorization Programs

The House of Delegates adopted a policy of opposition to preauthorization activities of both the Medicare and Medicaid Programs. While both these Programs have Federally imposed requirements to conduct some form of review, hospital admission preauthorization review is not specified.

Resolution M stated that such programs would be disruptive to the physician/patient relationship, jeopardize quality of care and might result in cost shifting, rather than overall long-term cost savings. In adopting this position, the House of Delegates urged members to recognize and appreciate the predicament of recipients of Medicare and Medicaid who are at the ultimate disadvantage, and to continue to maintain the time honored relationship of caring of the medical profession, as each member determines. A number of steps con-



tinue to be taken to try to resolve this problem at both the State and National levels.

In similar action, the House also adopted a position of opposition to preadmission review implemented by third-party carriers, and directed that all members be advised. This position is stated in Resolution W.

Medical Care Access for the Poor

Given the continuing shortcomings of government sponsored medical programs, the House of Delegates recognized the predicament of recipients by adopting Substitute Resolution S, dealing with medical care access for the poor. Citing escalating costs and declining financial coverage of these programs, as well as cost shifting, which has occurred under the guise of cost savings, the House noted concern for the consequences to indigent citizens. For these reasons, the House directed an evaluation of the access situation, and urged the study and recommendation of financing options to third-party carriers and units of government responsible for indigent care program funding.

This position reflects the long-standing recognition by the medical profession of the disparity between quality medical care delivery and the commitment of government resources to properly fund that care. Notwithstanding rising care costs, it was the consensus of the Delegates that governments generally have not fulfilled their obligations to program recipients.

Life Members

The KMA Bylaws provide that any member who has reached the age of 70, or who has retired from active practice and has served the profession with distinction,

NEWS

may be elected as a Life Member by his county medical society. The House of Delegates wishes to draw attention to this category of Life Membership, and county society secretaries are encouraged to bring to the attention of their societies any members in this category who merit this special recognition.

KMA Physicians Financial Services

Resolution K recognizes the KMA Physicians Financial Services, a Federal Credit Union, which was authorized by the House of Delegates in 1982, and has assumed vigorous operations. At the recent September meeting, the Delegates enthusiastically confirmed support of the Credit Union and urged all members to participate in the Credit Union, which provides significant member benefit.

Committee on State Legislative Activities

For the eighth year, Carl Cooper, Jr., M.D., of Bedford, will lead KMA efforts during the Kentucky General Assembly. KMA members are reminded to channel medical and health legislation through the Legislative Committee before submission to members of the Kentucky General Assembly. A joint effort provides unity and reduces friction which may result from lack of communication. Please refer any proposals to Doctor Cooper, c/o KMA Headquarters in Louisville. The Frankfort KMA office will be open again during the Kentucky General Assembly. The KMA Quick Action Committee will meet weekly in Frankfort to update KMA's positions.

Identification of Contagious Diseases

KMA has been asked by the Funeral Directors Association of Kentucky, Inc., to make members aware of the following. At the request of the KFDD the Kentucky Medical Association's Executive Committee is asking that members assist morticians by identifying victims of contagious diseases. Shortly after death occurs, the mortician may be exposed to blood and body fluids of decedents who have been infected. It is vital and necessary that remains are properly tagged, particularly if genital herpes virus or the diagnosis of AIDS was present at the time of death.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its *Manual on Alcoholism* points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

1982-83 Annual Report Kentucky State Board of Medical Licensure

JOHN C. QUERTERMOUS, M.D., PRESIDENT

The Kentucky State Board of Medical Licensure is an independent board of the Commonwealth of Kentucky created by the 1972 General Assembly. The Board is empowered to exercise all the administrative functions of the state in the prevention of empiricism and in the regulation of the practice of medicine and osteopathy in the state.

Members who served on the Board for the past year are as follows:

John C. Quertermous, M.D., Murray

Royce E. Dawson, M.D., Owensboro

Frank M. Gaines, Jr., M.D., Louisville

Booker T. Holmes, M.D., Frankfort

Thomas C. McDaniel, D.O., Falmouth

Olney M. Patrick, M.D., Frankfort

Mr. Burl Scott, Martin

D. Kay Clawson, M.D., Dean

University of Kentucky College of Medicine,
Lexington

Donald R. Kmetz, M.D., Dean

University of Louisville School of Medicine,
Louisville

David T. Allen, M.D., Commissioner

Bureau for Health Services

Cabinet for Human Resources, Frankfort

During the year the activities of the Board increased substantially. Staff was expanded to include two full-time investigators, a legal counsel for the Board and additional secretarial personnel. The additional staff was necessary in order to allow the Board to more effectively investigate complaints registered against physicians in the state. To offset the cost of hiring additional personnel the licensure registration fee was increased from \$12 to \$35 annually.

Seven day-long Board meetings were held during the year. At these meetings the Board reviewed and approved over 800 applications for medical licenses. During the year 647 new medical and 17 osteopathic licenses

were issued. Also 171 temporary permits to practice medicine were granted and 31 limited licenses were reviewed. Also at these meetings the Board approved for state certification 70 new paramedics, recertified 114 paramedics and issued seven new athletic trainers certificates.

At these meetings disciplinary matters required most of the Board's attention. For the year the Board reviewed 92 investigative reports made as a result of complaints being filed against physicians. During the year legal proceedings were initiated against 25 physicians' licenses. To date this action has resulted in eight physicians' licenses either being suspended or placed on probation, three licenses being revoked and three physicians retiring from the practice of medicine at the Board's request.

To assist in reviewing complaints filed against physicians holding Kentucky medical or osteopathic licenses, the Board appointed a Physician Review Advisory Committee. This committee was established to assist the Board in reviewing complaints and investigatory reports. The committee serves in an advisory capacity recommending to the Board what disciplinary action they feel is warranted in each case. The committee held five meetings during the year. It is made up of four physicians and one consumer member with John S. Llewellyn, M.D. of Louisville serving as its chairman.

At the March meeting a resolution was passed supporting the concept of a central drug investigatory agency. It has become apparent that the misdirection of prescription drugs has become a serious problem in the state. It is the feeling of the Board that the present investigatory and enforcement mechanisms are not being utilized to their optimum benefit. The Board believes that the problem can be handled with enhanced effectiveness by cooperation among the interested administrative agencies and boards therefore the Board has

LICENSURE BOARD

gone on record as supporting a centralized drug investigatory agency within state government.

The Board continues to struggle with the problem of evaluating the quality of education being provided at some of the medical schools located outside the United States and Canada. In order to help evaluate the education being provided at these institutions the Board has developed a questionnaire which all foreign medical schools must complete before the Board will accept graduates from their schools. Graduates from schools which are not approved by the Board will not be eligible for licensure in the state.

As provided by law, the Board continues to administer the state paramedic program. The Paramedic Advisory Committee which assists the Board in carrying out paramedic responsibilities held five meetings during the year. It administered the state paramedic certification exam in October and in April. At its meetings it recommended for approval four paramedic training courses and nine advanced life support providers. The paramedic program in the state remains quite active even though federal and state funds have been reduced

in recent years. Currently there are 284 paramedics employed in the state delivering emergency health care.

The day to day work of the medical licensure office has also increased substantially over the year. The office has computerized many of its files in an attempt to streamline physician records. For the year 5,366 physicians in the state and 750 physicians practicing outside the state registered their licenses. Work is now underway for the publishing of the 1984 State Medical Directory.

As you can see from this brief report, the past year has been one of both growth and change. Many changes have taken place and more are forthcoming. New times bring new problems and therefore new responsibilities. The Board looks forward to the challenges of the coming year.

Finally, I want to thank the Board members who gave of their time during the year. I would especially like to express my sincere appreciation to Frank M. Gaines, Jr., M.D. who resigned from the Board this year. For the past 11 years Doctor Gaines has served as the Board's Secretary. His contributions will be missed by all.

Postgraduate Page

JANUARY

- 4 The Asthmatic Child, Bingham Child Guidance Clinic, Conference Room, Louisville
- 7-17 "Medical Updates V: A Review of Recent Advances in Medicine," Office of Continuing Medical Education Quillen-Dishner College of Medicine Location: Vail, Colorado

FEBRUARY

- 1 Reading Disabilities, Bingham Child Guidance Clinic, Conference Room, Louisville
- 6-8 An NIH Consensus Development Conference of Use of Diagnostic Ultrasound Imaging in Pregnancy, National Institute of Health, Bethesda, Maryland
- 19-24 Fifteenth Family Medicine Review, Hyatt Regency Hotel, Lexington, Kentucky

MARCH

- 1-2 The Microcomputer Jungle: Impact on Health Care University of Kansas Medical Center, Kansas City
- 9-11 Advance Cardiac Life Support Courses, University of Kentucky Medical Center, Lexington, Kentucky
- 14-16 10th Annual Symposium on Psychopharmacology, Seelbach Hotel, Louisville, Kentucky

- 15 Sports Medicine: Rehabilitation of the Injured Athlete University of Kansas Medical Center, Kansas City
- 15-17 American Cancer Society Fourth National Conference on Human Values and Cancer, New York, New York
- 16-17 Midwest Pain Society 8th Annual Scientific Meeting Practical Management of Common Pain Syndromes Westin-Crown Center, Kansas City, Missouri
- 3/26-4/6 Clinical Cytopathology for Pathologists, 1984 Postgraduate Course, The John Hopkins University School of Medicine, Baltimore, Maryland
- 28 The Natural History of Mental Retardation, Bingham Child Guidance Center Conference Room, Louisville, Kentucky

APRIL

- 2-4 An NIH Consensus Development Conference on Osteoporosis National Institute of Health, Bethesda, Maryland
- 4 Residual Attention Deficit Disorders, Bingham Child Guidance Center, Conference Room, Louisville, Kentucky
- 25-28 10th Annual Postgraduate Course in High Risk Pregnancy, Hyatt Regency, Louisville, Kentucky
- 25-28 Annual Meeting of the Virginia Society of Ophthalmology, Inc. Williamsburg, Virginia

Members in the News

New Members

Barren County

Anthony W. Flannery, M.D.

Breckinridge County

David Brooks Paul, M.D.

Boone County

Richard A. Allnutt, III, M.D.
Joseph C. Harris, M.D.

Butler County

Cheo Ho Leung, M.D.

Campbell County

James L. Evans, III, M.D.
James J. Otrembiak, M.D.
John J. Theoret, M.D.

Clay County

Charlie A. Becknell, M.D.

Daviess County

John Thomas Houston, M.D.
Manilal B. Shah, M.D.

Fayette County

Mark S. Adams, M.D.
Robert S. Baker, M.D.
John V. Borders, M.D.
Renee E. Boyd, M.D.
Joe T. Broderon, M.D.
Robert J. Bunge, M.D.
Anthony J. Casale, M.D.
Susan L. Clark, M.D.
Robert J. Dempsey, M.D.
Guy T. Ellis, III, M.D.
Neil R. Farris, M.D.
Haley S. Faust, M.D.
Warren N. Frank, M.D.
Virginia E. Garrett, M.D.
Paul M. Goldfarb, Jr., M.D.
Michael R. Jones, M.D.

Randall S. Jones, M.D.

Richard L. Munk, M.D.

Donna S. Nall, M.D.

William M. Parell, M.D.

Paul K. Phillips, M.D.

Thomas R. Pohlman, M.D.

Taddaro L. Richardson, M.D.

Alan R. Tempkin, M.D.

Daniel R. Tynan, M.D.

S. Randolph Waldman, M.D.

William L. Wittman, M.D.

Robert B. Woolley, M.D.

William J. Zwartjes, M.D.

Clay County

Andrei Bordeianu, M.D.

Graves County

Donald R. Freund, M.D.

Hardin County

Rehana Rafiq, M.D.

Jefferson County

Joel Abuton, M.D.
James T. Badgett, M.D.
Bobby C. Baker, M.D.
Ronald A. Berry, M.D.
Carl Browman, Ph.D. (Associate)
Roscoe C. Bryant, Jr., M.D.
Thomas M. Cassidy, M.D.
Paul J. Coliberti, M.D.
Bruce F. Corsello, M.D.
Humberto A. Coto, M.D.
Bruce A. Davis, M.D.
Frederick E. Dennstedt, M.D.
Yusuf K. Deshmukh, M.D.
David C. Dolen, M.D.
Patrick S. Gentile, M.D.
Jose M. Gomez, M.D.
James M. Graham, M.D.
G. Daryl Hallman, M.D.
Mary Ann Henry, M.D.
Charles E. Hornaday, Jr., M.D.

Michael W. Howard, M.D.

Robert C. Hughes, M.D.

W. Michael Hughes, M.D.

Edna M. Kahn, M.D.

Thomas W. Klammer, M.D.

Edmund S. Lee, M.D.

Kenneth R. McLeish, M.D.

Paul K. Minifee, M.D.

Husam M. Nazer, M.D.

Kathy Ann Nieder, M.D.

Rita Puri, M.D.

Paul A. Rafson, M.D.

G. R. Schrodt, Jr., M.D.

David Seligson, M.D.

Mary Elaine Stauble, M.D.

Arun K. Ammat, M.D.

Henry J. Walter, M.D.

Raymond W. Watters, M.D.

Rebecca A. Wiese, M.D.

Fred A. Williams, Jr., M.D.

Elaine M. Woerner, M.D.

Kenton County

Baxter W. Napier, III, M.D.

Laurel County

Chapin Henley, M.D.

Madison County

James E. Miller, M.D.

Marion County

McDonald Gray, Jr., M.D.

McCracken County

John M. Colby, M.D.

John C. Gillespie, M.D.

M. Louise Lockard, M.D.

Charles W. Ransler, III, M.D.

Nassir Saghafi, M.D.

Perry County

Mitchell Wicker, Jr., M.D.

MEMBERS

Pike County

James R. Pigg, M.D.

Russell County

Richard G. King, M.D.

Warren County

Frederick E. Finger, III, M.D.

John Robert White, M.D.

Whitley County

Jonathon Baldwin, M.D.

Jeffrey A. Hilb, M.D., Louisville, has been elected for a Fellowship of the American College of Physicians (ACP). Election to Fellowship in the national medical organization signifies that a physician has been recognized by his colleagues as having attained a high level of scholarship and achievement in medicine. Doctor Hilb is a 1975 graduate of the University of Illinois and has been a member of KMA since 1979.

In Memoriam

MAURICE T. FLIEGELMAN, M.D.

**Louisville
1911-1983**

Maurice T. Fliegelman, M.D., died August 29, 1983. Doctor Fliegelman was a widely known dermatologist and professor emeritus of medicine at the University of Louisville. Doctor Fliegelman helped pioneer "sand-paper surgery." He was a 1936 graduate of the University of Pennsylvania Medical School and a life member of KMA.

JESSE S. BEAN, M.D.

**Elizabethtown
1878-1983**

Jesse S. Bean, M.D., died August 2, 1983. At the time of his retirement in 1974, Doctor Bean was the oldest practicing physician in Kentucky. Doctor Bean was a 1904 graduate of the old Hospital College of Medicine. He was a life member of KMA.

CARL L. WHEELER, JR., M.D.

**Lexington
1910-1983**

Carl L. Wheeler, Jr., M.D., a pediatrician, died July 31, 1983. He was a 1937 graduate of the University of Louisville School of Medicine and a life member of KMA.

STUART M. HUNTER, M.D.

**Louisville
1927-1983**

Stuart M. Hunter, M.D., a family physician, died October 24, 1983. He was a 1953 graduate of the University of Louisville School of Medicine and a member of KMA since 1954.

MEHMET ARIK, M.D.
Louisville
1918-1983

Mehmet Arik, M.D., died September 17, 1983. Doctor Arik was a 1946 graduate of the University of Istanbul. He was a psychiatrist and had been a member of KMA since 1963.

SAMUEL M. ADAMS, M.D.
London
1922-1983

Samuel M. Adams, M.D., a general practitioner from London, died September 25, 1983. He was a 1946 graduate of the University of Louisville School of Medicine and a member of KMA since 1949.

MARK H. HEALY, M.D.
Louisville
1941-1983

Mark H. Healy, M.D., a psychiatrist from Louisville, died October 22, 1983. He was a 1967 graduate of the University of Southern California School of Medicine and a member of KMA since 1977.

PAUL LAWRENCE DENT, M.D.
Louisville
1907-1983

Paul Lawrence Dent, M.D., a retired surgeon, died November 7, 1983. Doctor Dent was a Fellow of the American College of Surgeons and was an Emeritus member of KMA. Doctor Dent was a 1931 graduate of the Medical College of Virginia.

WILBUR RUSSELL HOUSTON,
M.D.
Union
1902-1983

Wilbur Russell Houston, M.D., died October 11, 1983. Doctor Houston, a general practitioner, was a 1929 graduate of Eclectic Medical College. Doctor Houston had been a member of KMA since 1936.

HERBERT WALD, M.D.
Louisville
1909-1983

Herbert Wald, M.D., a general surgeon, died September 2, 1983. Doctor Wald was a 1937 graduate of the University of Chicago School of Medicine.

DOROTHY E. HOLTGRAVE
MITTELSTEN, M.D.
Louisville
1924-1983

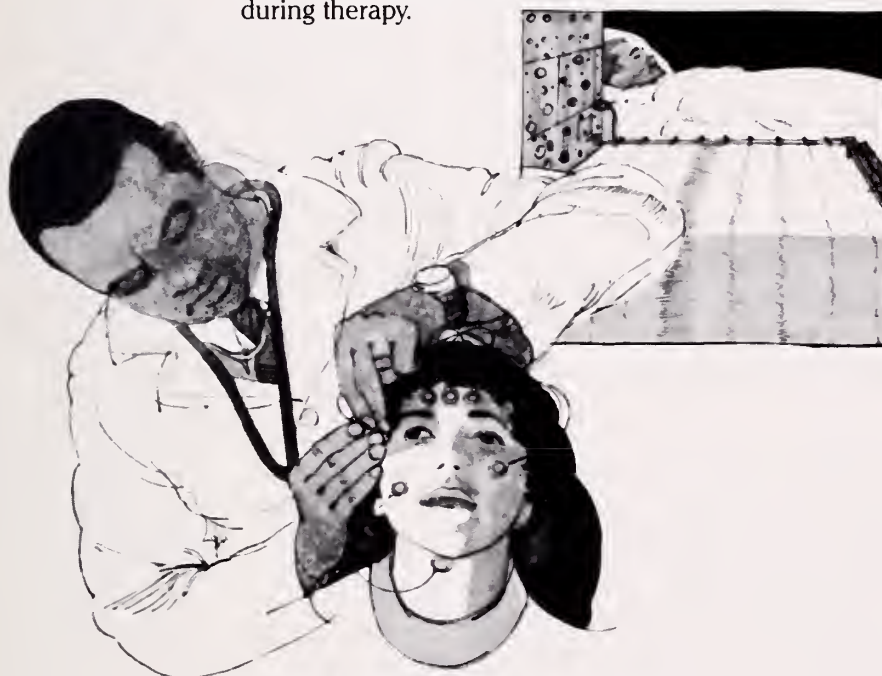
Dorothy E. Holtrave Mittelsten, M.D., an inactive general practitioner, died November 16, 1983. Doctor Mittelsten was a 1957 graduate of the University of Louisville School of Medicine and a member of KMA since 1958.

The weight of objective evidence supports the clinical efficacy of Dalmane®

flurazepam HCl/Roche
15-mg/30-mg capsules



- Studied extensively in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.¹⁻¹²
- Studied in over 200 clinical trials involving over 10,000 patients.¹³
- During long-term therapy, which is seldom required, periodic blood, kidney and liver function tests should be performed.
- Contraindicated in patients who are pregnant or hypersensitive to flurazepam.
- Caution patients about drinking alcohol, driving or operating hazardous machinery during therapy.



References: 1. Kales A et al: *J Clin Pharmacol* 17:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 3. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 4. Kales A et al: *JAMA* 241:1692-1695, Apr 20, 1979. 5. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 15, 1978. 6. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 7. Kales A, Kales JD: *Pharmacol Physicians* 4:1-6, Sep 1970. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Dement WC et al: *Behav Med* 5:25-31, Oct 1978. 10. Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 11. Karacan I, Williams RL, Smith JR: The

sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. 12. Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. 13. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

Dalmane® (flurazepam HCl/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



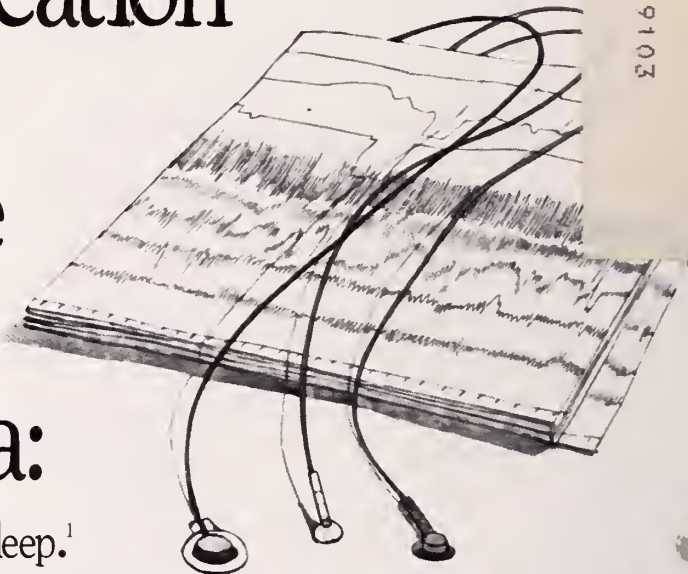
Roche Products Inc.
Manati, Puerto Rico 00701

Contemporary Hypnotic Therapy

Dalmane® [flurazepam HCl/Roche] Stands Apart

Only one
sleep medication
objectively
fulfills all these
important
criteria:

- Rapid onset of sleep.¹
- More total sleep time on the first 3 nights of therapy.¹
- More total sleep time on nights 12 to 14 of therapy.¹
- Continued efficacy for at least 28 nights.²
- Seldom produces morning hangover.³
- Avoids rebound insomnia when therapy is discontinued.^{1,4,5}



Library of SUR
College of Phys. of Phil.
19 South 22nd St.
Philadelphia, PA 19103



15-mg/30-mg capsules

Dalmane® ^{IV}
flurazepam HCl/Roche



Roche Products Inc.
Manati, Puerto Rico 00701

Copyright © 1984 by Roche Products Inc. All rights reserved.
Please see summary of product information on reverse side.

STACKS JOURNAL OF THE
**Kentucky
Medical**
ASSOCIATION



**Gunshot Wounds
in Children
A Preventible
Disease**

THE
MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA



FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY

— YOUR FIRST STEP TO FIRST QUALITY PROTECTION —

CONTACT FIELD REPRESENTATIVES

Louisville Office

DONALD G. GREENO
400 Sherburn Lane, Suite 104,
Louisville, Kentucky 40207
(502) 895-5501

Lexington Office

CHARLES E. FOREE
Suite 103B, 152 East Reynolds Road
Lexington, Kentucky 40503
(606) 272-9124

JOURNAL OF THE
Kentucky
Medical
ASSOCIATION

Volume 82, Number 2

February 1984

SCIENTIFIC

- Gunshot Wounds in Children, A Preventible Disease 63
Kenneth Schikler, M.D. and Mary P. Jones, M.S.S.W.
- Geographic Variation in Cancer Mortality Among 66
Kentuckians, 1971-80
*M. Ward Hinds, M.D., M.P.H., Joseph W. Skaggs, D.V.M.,
M.P.H. and David T. Allen, M.D., M.P.H.*
- A Trial of Low-Dose Heparin Therapy In 75
Open Heart Surgery Patients
*Allan M. Lausing, M.D., Ph.D., Zahi H. Masri, M.D. and
Roland E. Girardet, M.D.*
- Teaching Medical Students Gynecologic History and 80
Physical Examination
Joseph S. Sanfilippo, M.D. and Byron J. Masterson, M.D.

EDITORIAL

- PCG 85

ASSOCIATION

- News 99
- Proceedings, KMA Board of Trustees 100
- Call for Museum Acquisitions 104

REGULAR FEATURES

- President's Page 61
- Letters 87
- Book Reviews 93
- Members 103
- Postgraduate Page 105

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific: Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign, (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40403 (606) 986-2323	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145.....	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1986
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6143	1984

Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6472	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574	1986
4th.....	THOMAS R. TAYLOR, M.D., 914 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th.....	BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111.....	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40342 (502) 839-6981.....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3748	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1984
12th.....	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 324-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

FEBRUARY BUYERS' GUIDE FOR *JOURNAL OF KMA*

Boots Pharmaceuticals, Inc	90, 91, 92
Campbell Laboratories, Inc	103
Clinic Manager Systems	95
Classified.....	106
General Leasing Corp.....	84
International Conferences.....	105
KMA Insurance Agency, Inc.....	86, 97
Kentucky Medical Insurance Company.....	62
A. P. Lee Agency, Inc.....	106
Lexington Clinic	98

Eli Lilly and Company.....	94
Medical Protective Company	56
Pfizer Laboratories.....	88, 89
Roche Laboratories	82, 83, 84, 107, 108
Smith, Kline & French Laboratories.....	102
Spectrum Emergency Care	84
Upjohn Company	101
U. S. Air Force.....	96
Wyeth Laboratories	59, 60

Action without interaction

when given with drugs that utilize the P450 system*

- unlike diazepam and chlordiazepoxide, no interaction with cimetidine
- unlike diazepam, clearance not delayed by oral contraceptives

no interaction reported with more than 300 other drugs in clinical trials*

p450

Agent of change

Ativan®
for (lorazepam) **©**
Anxiety

See important information on following page.

* All benzodiazepines produce additive sedative effects when given with alcohol or other CNS depressants.

© 1983, Wyeth Laboratories.

W. E. B. DUBOIS



NEW TABLET DESIGN 0.5, 1.0 and 2.0 mg

The appearance of these tablets is a trademark of Wyeth Laboratories

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid over-sedation. Terminate dosage gradually since abrupt withdrawal of any anxiolytic agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper GI disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan®
for (lorazepam)
Anxiety

DOSAGE: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

HOW SUPPLIED: 0.5, 1.0 and 2.0mg tablets.

Wyeth Laboratories
Philadelphia, PA 19101



Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

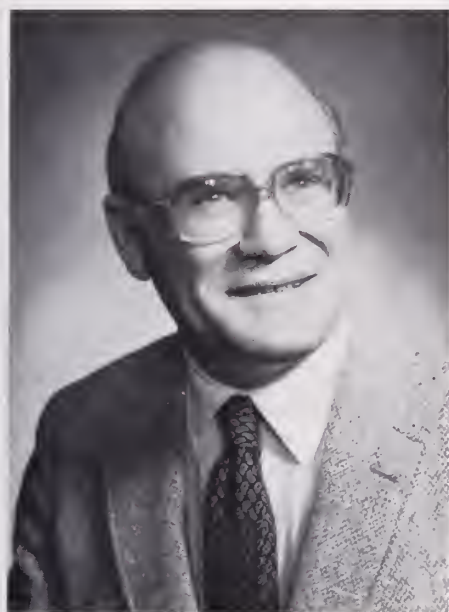
The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

Journal of the Kentucky Medical Association

PRESIDENT'S PAGE



Those same wonderful folks who have been running the Postal Service have now decided to assist the nation's phone system. And for an encore at the same time they have imposed a system of prospective payment for the health care of hospitalized Medicare patients. Even though the Diagnostic Related Groups (DRG) system enacted is an experimental one, it has been imposed on almost the entire nation. The exceptions are the states of New Jersey, Massachusetts, Maryland, and New York which are four of the most expensive and happen to be excluded from the mean calculations.

This new day in reimbursement is expected to create reaction among private insurers to do the same thing to avoid cost-shifting. Kansas Blue Cross-Blue Shield have already gone to DRG's for hospital and physicians alike during the past few months and others will soon follow.

During the past 15 years the nation has made extraordinary progress in improving the health of its people. Beginning in 1968 death rates began to decrease steadily for the United States and have continued through 1980 at one of the fastest rates seen during this century.¹ At the same time the nation's economy has gone into systole and there has been a similar contraction of expenditures for health care.

Since a recent study provides data that relate increasing health expenditures made during the 1970's to falling mortality, it behooves us to monitor efforts of this sort for untoward effect.²

Is it any wonder that America has been said to show a penchant for shooting itself in the foot?³ Therefore, we will need to see if new relationships develop between physicians, hospitals, and patients. The availability of computer software to provide a rigid program of diagnosis and therapy may lead to dictation in the management of patients. The assessment of the individual physician's patient mix may lead to curtailment of privileges. The failure of significant numbers of staff members to achieve financial goals may bankrupt a hospital and leave patients out in the cold.

Recently the Trends Committee met jointly with the Ad Hoc Committee on the formation of Medical Staff Section of the KMA. A presentation by Mr. Harry Hinton of the AMA Professional Relation Division of DRG's revealed that no early information about problem areas exists. However, the AMA has developed the Hospital Medical Staff Section to provide a forum for discussing issues of common interest to medical staff and forwarding policy resolutions to the AMA House of Delegates.

As a result of this joint meeting we are recommending that the KMA serve as a central repository for problems relating to DRG's and their effect on patient-physician-hospital relationships. In this way we can fulfill our responsibility to be sure that the rationing of health care does not harm the quality of life.

The Association then is studying these problems and the need to provide a means to monitor them on behalf of our patients, members, and hospitals. Let us not let America shoot itself in the foot!

References 1. Blendon, R.J., Rogers, D.E.: Cutting Medical Care Costs, *JAMA* 250: 1880-1885. 2. Hadley, J.: More Medical Care, Better Health? Washington, D.C., The Urban Institute Press. 1983. 3. Weissman, G.: Annual Meeting Louisville Chamber of Commerce, 1983.

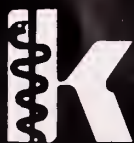
Charles C. Smith, Jr., M.D.
KMA President-Elect



**as one physician
to another. . .**



**“Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?”**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company · P.O. Box 35880 Louisville, Ky. 40232

TOLL FREE 1 800-292-1858 · Louisville Area 459 3400

Gunshot Wounds in Children A Preventible Disease

KENNETH SCHIKLER, M.D. and MARY P. JONES, M.S.S.W.

A retrospective study was conducted by reviewing the records of all children and adolescents with gunshot injuries presenting at Kosair-Children's Emergency Room in Louisville during a two and a half year period. The purpose was to determine causes and circumstances surrounding the incidents. Most of the 22 victims were accidentally shot in or near their own or a relative's home. The most at risk age group was 11-16 years and the younger the child, the more likely the injury was to be inflicted or to result in death. Unlike similar studies, white children dramatically outnumbered blacks. The largest number of families earned below the average U.S. income. Suggestions are made for developing a medically oriented prevention program.

The use of firearms in today's society is on the increase. In 1968, it was estimated that there were 90 million guns in civilian hands in the United States, and about half of all American homes had a firearm.¹ A 1979 study revealed the estimated number to be 210-220 million firearms in these homes.²

The leading cause of death in children has been known to be accidents,³ but recent studies have shown that firearms are the fifth ranking cause of death of these children.^{4,5}

Because of these facts, and because a large number of children and adolescents who presented with gunshot wounds at Kosair-Children's Emergency Room were observed to be victims of accidental shooting, we decided to conduct a study of the factors involved. The purpose was to examine the circumstances surrounding the shootings and how these compared with other studies, and to determine whether prevention strategies could be developed.

Review of the Literature

In a study of factors involved in the shooting injuries of their young populations, Heins, et al⁶ found that most children were injured while playing with guns in their own homes. Both this and a study by Klein, et al⁷ in 1977 found an over-representation of either Blacks or families with social and economic problems. Klein found that the guns involved were acquired for self protection rather than for hunting, target shooting or criminal purposes.

The homicide rate in the U.S. is three to 10 times that of Western Europe, Canada and Japan. The rate of handgun ownership in the U.S. is far above the total firearm ownership in most European Countries.⁸

Materials and Methods

The Kosair-Children's Hospital in Louisville which serves the city and surrounding county (pop. 684,793) and the western part of the state, treated an average of 41,000 children in the Emergency Room during the years 1978-1980. For our study, all hospital charts of patients seen in the past two and a half years with gunshot wounds were reviewed. Factors studied were: age at the time of accident, sex, race, and family income of the patient, type of firearm, whether or not the injury was accidental, person inflicting the injury, location of the wound, and its sequelae.

Results

Twenty-two patients ranging in age from one through 16 years were seen with complaints of gunshot wounds. There were six in the age group from one to five, none from six to ten, seven in the 11-13 range and nine ages 14-16. Eighteen were male and 14 female. There were four black children and 16 white and two biracial black/white. Average family income was under \$5,000 for two families, 14 earned \$11,000 to \$14,000, five earned \$16,000-\$19,000 and one earned \$21,000 (Table 1).

GUNSHOT WOUNDS—Schikler and Jones

TABLE 1: DEMOGRAPHIC INFORMATION
Children Receiving Gunshot Injuries
N = 22

Child Age	Number	%
1-5	6	27
6-10	0	0
11-13	7	32
14-16	9	41
	22	100
Race		
White	16	73
Black	4	18
Biracial Black/White	2	9
	22	100
Sex		
Male	18	82
Female	4	18
	22	100
Family Income		
Under \$5,000	2	9
\$5,000-\$10,000	0	0
\$11,000-\$14,000	14	63
\$16,000-\$19,000	5	22
\$21,000	1	6
	22	100

TABLE 2: CIRCUMSTANCES SURROUNDING THE SHOOTINGS
ACCIDENTS

Place	Number	%
Home	10	66
Hunting	2	13
Car	1	7
Friend's Home	1	7
Street	1	7
	15	100
Person Inflicting Injury		
Family Member	5	29
Self	5	29
Friend	4	24
Non-Relative	2	12
Unknown	1	6
	17	100
NON-ACCIDENTS		
Place		
Street	4	57
Home	3	43
	7	100
Person Inflicting Injury		
Assailant on street	3	60
Self	1	20
Unknown	1	20
	5	200
TYPE OF GUNS		
Handguns	16	73
Long guns	6	27
	22	100

Seventeen of the 22 shootings were reported to be accidental, and five non-accidents. Of the accidental shootings, 10 occurred in the home, two while hunting, one in a car, one at a friend's home and one in the street. Accidents were caused by a family member in five cases, the child or adolescent in five cases, two by non-family members, four by friends and one in which the person inflicting the injury was unknown at the time of treatment.

The seven non-accidental injuries occurred in the street in four cases and at home in three cases. The persons inflicting the injuries were three assailants in the street, one by the adolescent in an attempted suicide and one was unknown. Type of firearm in 16 cases were handguns and in six, long guns. (Table 2)

The location of the injuries were eight to limbs, six to the chest, four to the abdomen, two to the head and two to the buttocks. In 14 cases there was no sequelae, in six, mild to severe dysfunction, and two resulted in death. The two which resulted in death were children ages one and three. (Table 3)

Summary and Discussion

The number of guns in U.S. homes has increased dramatically over the past 10-20 years. Consequently, accidental shootings of young children and adolescents is a serious problem.

Our study has borne out the observation that most of the younger victims seen in our Emergency Room with

gunshot injuries were accidentally injured. The younger the child, the more apt he was to be injured by someone else and the more at risk he was for death.

Those purposefully injured were more often girls than boys. The largest number of these accidents occurred in or near the child's or a relative's home. Handguns were most often involved. The age group most at risk for accidental injury was the 11-16 age group. As in similar studies, lower socioeconomic children were most often involved, probably because that group is more often treated in the Emergency Room. But the number of white children far outnumbered blacks, showing a dramatic difference in this area from similar studies. Most families fell below the average U.S. family income (1979 figures).

The implications of this and similar studies is that serious thought must be given to developing medically oriented prevention programs for dealing with the problem of accidental gunshot injuries to children and adolescents. Such programs should include:

1. Public awareness campaigns designed to educate families of all races and socioeconomic groups about the extent of the problem.
2. Written warnings and directions attached to all guns and licenses sold.

GUNSHOT WOUNDS—Schikler and Jones

TABLE 3: INJURIES

WOUND SITE	NUMBER	%
Limb	8	37
Chest	6	27
Abdomen	4	18
Head	2	9
Buttocks	2	9
	22	100
SEQUELAE		
None	14	64
Mild to Severe Dysfunction	6	27
Death	2	9
	22	100

3. Inclusion of questions regarding the presence of guns in the home on all well child checklists such as the one developed by Johnson *et al.*⁹
4. Developmentally oriented safety surveys as part of the routine physical check-up with special emphasis on the risk of guns to older boys and adolescents. One example is that developed by Bass *et al.*¹⁰
5. Distribution of easily readable literature for educating the parents about the risk to children and adolescents of guns in the home. A good example is the leaflet entitled "Is There a Gun in the Home?" developed by Roseanne Keller.¹¹
6. Instructions to parents regarding the fact that it is a more important prevention measure to remove the guns than to attempt to teach the child to deal with them safely.

At the minimum, in well child examinations, physicians should routinely ask about the presence of guns in the home. Parents should be instructed to child-proof the home from these hazardous agents just as they would poisons or any of the other common sources of accidents.

- References**
1. Newton G, Zimring F: Firearms and Violence in American Life: National Commission on the Causes and Prevention of Violence. U.S. Government Printing Office, Washington, D.C., 1968.
 2. Fields S: Handgun Prohibition and Social Necessity. St. Louis University Law Journal 23:35-61, 1979.
 3. Snapper RJ, Ohms JS: The Status of Children. U.S. Department of Health, Education and Welfare, Publication No. (OHDA)78-30133:14-15, 1977.
 4. Accident Facts: Chicago National Safety Council, 1980.
 5. Select Panel For Promotion of Child Health: Better Health In Our Children: A National Strategy, Vol. 1. DHHS (PHS) Publication 79-55071, Washington, D.C., 1981.
 6. Heins M, Kahn R, Bjordnal J: Gunshot Wounds in Children. AJPH 64:4:326, 1974.
 7. Klein D, Reizer MS, Amburg HV, Wallen AS: Some Social Characteristics of Young Gunshot Fatalities. *Accid, Anal & Prev* 9:77, 1977.
 8. Rivera FP, Stapleton FB: Handguns and Children: A Dangerous Mix. *Dev Behav Ped.* Vol. 3, No. 1, March, 1982.
 9. Johnson DD, Jones BL: The Well Child Care Check Sheet. *Clin Peds* 19:4, 1980.
 10. Bass J, Mehta K: Developmentally Oriented Safety Surveys: Reported Parental and Adolescent Practices. *Clin Peds* 19:5:350, 1980.
 11. Keller R: Is There a Gun in the House? Literacy Council of Alaska, Fairbanks, 1977.

From the Department of Pediatrics, University of Louisville School of Medicine, Louisville, KY 40292

Geographic Variation in Cancer Mortality Among Kentuckians 1971-80

M. WARD HINDS, M.D., M.P.H., JOSEPH W. SKAGGS, D.V.M., M.P.H.

and DAVID T. ALLEN, M.D., M.P.H.

We calculated the age-adjusted, sex-specific cancer mortality rates for 19 cancer sites among residents of 15 districts in Kentucky during 1971-80. A comparison of rates among all Kentuckians with rates among the United States SEER (Surveillance, Epidemiology and End Results) populations showed the greatest differences for cancer of the stomach (KY lower), rectum (KY lower) and skin and lip (KY higher) among males, and cancer of the esophagus (KY lower), hepatobiliary system (KY higher), cervix (KY higher) and total uterus (KY higher) among women. Among the 15 Kentucky districts, substantial variation in mortality rates was noted for cancer of the buccopharynx, esophagus, stomach, colon, rectum and prostate for males, and for cancer of the stomach, colon, rectum, cervix and ovary for females. We feel that the interdistrict variation in mortality rates for cancer of the esophagus in males and cancer of the stomach and colorectum in both sexes is probably a reflection of variation in cancer risk among the district populations. For other sites which showed substantial interdistrict variation in mortality rates, it is probably not possible to separate the influence of differential cancer risk and differential survival post-cancer diagnosis. These data suggest that a significant potential exists for a reduction in cancer mortality for some cancer sites in some geographic areas of Kentucky.

Examination of the geographic variation of disease incidence and mortality rates is a prime tool of epidemiology. Such examination can also be useful to other disciplines such as health planning. Because mortality rates are a function of both incidence rates and survival rates for a disease, epidemiologists generally prefer to use incidence rates when investigating disease etiology. However, population-based cancer incidence rates are available only for those geographic areas with population-based cancer registries. Eleven such registries in the United States are operated under the SEER (Surveillance, Epidemiology and End Results) program of The National Cancer Institute,¹ and there are others,² but not in Kentucky. In the absence of cancer incidence rates for Kentucky, we examined cancer mortality rates to identify those anatomic sites for which substantial geographic variation in mortality exists. An additional objective of this study was to identify any cancer sites for which Kentucky mortality rates were substantially different from those found among a population representative of the United States as a whole during the study period.

Method

Cancer deaths among Kentucky residents during 1971-1980 were identified through the Health Information and Vital Statistics Branch of the Kentucky Department for Health Services. Population estimates by age, sex, year and geographic area were obtained from the 1970 census and the State Center for Health Statistics.³ We chose the 15 Kentucky Area Development Districts (Table 1) as geographic areas for comparison. Counties were not chosen because the number of site- and sex-

Journal of the Kentucky Medical Association

CANCER MORTALITY—Hinds, Skaggs and Allen

TABLE 1. Kentucky Area Development Districts and Counties Contained Within Each.

District	Name	Counties
1	Purchase	Fulton, Hickman, Carlisle, Ballard, McCracken, Graves, Marshall, Calloway
2	Pennyrile	Livingston, Crittenden, Lyon, Trigg, Caldwell, Hopkins, Christian, Todd, Muhlenberg
3	Green River	Union, Webster, Henderson, McLean, Daviess, Ohio, Hancock
4	Barren River	Logan, Butler, Warren, Simpson, Allen, Edmonson, Barren, Hart, Monroe, Metcalf
5	Lincoln Trail	Breckenridge, Grayson, Meade, Hardin, Larue, Nelson, Marion, Washington
6	KIPDA	Jefferson, Bullitt, Spencer, Oldham, Shelby, Henry, Trimble
7	Northern Kentucky	Carroll, Gallatin, Owen, Grant, Boone, Kenton, Campbell, Pendleton
8	Buffalo Trace	Bracken, Robertson, Mason, Fleming, Lewis
9	Gateway	Montgomery, Bath, Menifee, Rowan, Morgan
10	Fivco	Greenup, Carter, Elliott, Boyd, Lawrence
11	Big Sandy	Magoffin, Johnson, Floyd, Martin, Pike
12	Kentucky River	Lee, Wolfe, Owsley, Breathitt, Perry, Leslie, Knott, Letcher
13	Cumberland Valley	Rockcastle, Jackson, Laurel, Clay, Knox, Whitley, Bell, Harlan
14	Lake Cumberland	Green, Taylor, Adair, Casey, Russell, Cumberland, Clinton, Wayne, Pulaski, McCreary
15	Bluegrass	Anderson, Franklin, Mercer, Woodford, Scott, Fayette, Jessamine, Boyle, Lincoln, Garrard, Madison, Clark, Bourbon, Harrison, Nicholas, Powell, Estill

specific cancer deaths were too few to give stable rates for many individual counties.

Cancer deaths were coded to district of residence at the time of death. Age-, sex- and district-specific cancer mortality rates per 100,000 population were calculated for each year from 1971 through 1980, and average annual age-adjusted rates were calculated for each sex and district using the direct method with the 1970 U.S. population as a standard.¹

Cancer site was coded by a nosologist in the Health Information and Vital Statistics Branch according to the eighth and ninth revisions of the International Classification of Diseases. Cancer site groupings were selected to conform to those published by The National Cancer Institute for the SEER program.¹ More detailed site classification and rare sites were not analyzed be-

cause of the very small number of associated deaths in many districts. The mortality rates collected by the SEER program were selected as bases for comparison because the group of cancer registries in the program (exclusive of Puerto Rico) is felt to be generally representative of the total U.S. population, and their published data cover the mid-point years (1973-77) of this study.

The closest association between cancer incidence and cancer mortality rates is found for those cancer sites where survival is poorest. Such sites include esophagus, stomach, pancreas, liver and lung,⁴ and a geographic comparison of rates for these sites is most useful from an etiologic point of view. Therefore, we constructed maps depicting the variation in mortality rates for those poor-survival sites which showed substantial variation (defined as a ratio of 2.0 or more between two site-specific district rates when each of the two compared districts reported 20 or more site-specific deaths). We have also included maps for colorectal cancer because there was marked agreement in the geographic distribution pattern for the two sexes and evidence that this variation resulted from differences in incidence rather than survival. Geographic variation was shown by dividing the range of rates into quartiles and color density-coding each district according to the quartile for its site-specific rate.

Results

Tables 2 and 3 contain both the total number of site-specific cancer deaths and the average annual age-adjusted cancer site-specific mortality rates per 100,000 population for each district, Kentucky and the SEER registries,¹ for males and females, respectively. As can be seen, the Kentucky and SEER age-adjusted mortality rates showed relatively small differences for most sites. The greatest differences among males (as measured by the ratio of the larger to the smaller rate) were for stomach (SEER: Kentucky ratio = 1.3), rectum (SEER: Kentucky ratio = 1.3) and skin and lip (Kentucky: SEER ratio = 1.4). Among females, the greatest differences were for esophagus (SEER: Kentucky ratio = 1.3), hepatobiliary (Kentucky: SEER ratio = 2.0), cervix (Kentucky: SEER ratio = 1.6) and total uterus (Kentucky: SEER ratio = 1.4). Without attention to the degree of difference, Kentucky demonstrated lower mortality rates than SEER for 11 of the 17 sites among males but for only nine of the 19 sites among females. However, even for those cancer sites where the Kentucky rate was lower than the SEER rate, one or more

CANCER MORTALITY—Hinds, Skaggs and Allen

TABLE 2. Kentucky Cancer Deaths and Age-Adjusted Average Annual Cancer Mortality Rates* By Selected Site Groups and District, Males, 1971-1980

Sites		DISTRICTS								
		1								
		2	3	4	5	6	7	8	9	
Bucco-	Rate	4.6	5.4	3.6	4.1	5.1	9.3	7.9	3.1	3.8
Pharynx	Number	(45)	(53)	(32)	(41)	(38)	(303)	(108)	(9)	(10)
Esophagus	Rate	4.1	2.7	4.3	3.4	1.0	8.7	6.8	4.3	3.7
	Number	(40)	(25)	(38)	(35)	(30)	(282)	(92)	(13)	(10)
Stomach	Rate	6.7	6.3	5.3	5.8	7.2	8.3	5.8	7.2	10.5
	Number	(67)	(62)	(47)	(60)	(54)	(256)	(79)	(22)	(29)
Colon	Rate	18.5	16.6	19.5	17.7	18.8	24.0	26.9	18.8	19.2
	Number	(189)	(165)	(177)	(187)	(142)	(737)	(360)	(55)	(53)
Rectum	Rate	3.7	4.4	4.2	3.8	3.6	5.2	6.9	3.8	2.4
	Number	(37)	(45)	(38)	(39)	(27)	(161)	(93)	(11)	(7)
Colo-	Rate	22.2	21.0	23.7	21.5	22.4	29.2	33.8	22.6	21.6
Rectum	Number	(226)	(210)	(215)	(226)	(169)	(898)	(453)	(66)	(60)
Hepato-	Rate	4.1	4.6	4.1	3.4	5.4	6.4	4.3	2.8	5.7
Biliary	Number	(41)	(45)	(37)	(36)	(41)	(203)	(59)	(8)	(16)
Pancreas	Rate	12.2	10.1	11.6	11.6	11.9	12.6	10.1	14.0	12.2
	Number	(123)	(98)	(104)	(121)	(88)	(398)	(136)	(41)	(34)
Lung	Rate	74.5	67.8	73.6	60.2	71.3	93.5	87.4	53.5	58.8
	Number	(725)	(645)	(654)	(613)	(530)	(3018)	(1186)	(154)	(156)
Skin and	Rate	3.6	5.1	3.8	4.8	3.9	3.6	4.6	4.0	3.3
Lip	Number	(35)	(53)	(35)	(50)	(31)	(118)	(63)	(12)	(9)

Sites		1	2	3	4	5	6	7	8	9
Prostate	Rate	19.1	19.1	18.7	20.4	17.5	21.9	20.5	16.3	20.0
	Number	(200)	(203)	(172)	(219)	(131)	(623)	(270)	(51)	(60)
Kidney &	Rate	10.7	8.5	11.3	8.1	10.2	12.2	12.9	9.1	9.8
Bladder	Number	(106)	(82)	(102)	(84)	(76)	(373)	(173)	(27)	(27)
Nervous	Rate	5.3	6.1	4.8	5.1	3.6	5.6	4.6	5.5	4.0
System	Number	(17)	(57)	(42)	(50)	(31)	(192)	(64)	(14)	(12)
Lymphomas	Rate	7.1	7.1	8.1	6.1	5.3	7.7	7.0	3.9	6.0
	Number	(69)	(72)	(73)	(62)	(41)	(254)	(96)	(11)	(18)
Multiple	Rate	3.4	3.0	3.1	3.7	3.1	2.8	2.8	2.7	1.8
Myeloma	Number	(34)	(29)	(28)	(37)	(23)	(88)	(37)	(8)	(5)
Leukemias	Rate	9.7	8.5	11.3	7.2	8.6	9.5	9.1	8.9	7.1
	Number	(93)	(85)	(102)	(74)	(69)	(303)	(123)	(26)	(20)

10	11	12	13	14	15	Kentucky	SEER*
1.4	2.6	1.5	3.8	3.0	5.6	5.7	5.4
(27)	(18)	(25)	(38)	(25)	(118)	(890)	(2363)
1.6	2.6	3.5	3.3	2.8	4.6	5.0	5.7
(28)	(18)	(19)	(32)	(24)	(97)	(783)	(2439)
11.3	8.7	10.0	9.3	7.5	9.4	7.8	10.5
(69)	(62)	(56)	(93)	(66)	(198)	(1220)	(4342)
19.2	12.5	11.5	15.0	13.5	18.6	19.1	20.9
(118)	(88)	(64)	(119)	(119)	(391)	(2994)	(8623)
5.2	2.0	3.3	2.3	3.0	4.8	4.3	5.7
(32)	(14)	(19)	(23)	(26)	(100)	(672)	(2378)
21.4	11.5	14.8	17.3	16.5	23.4	23.4	26.6
(150)	(102)	(83)	(172)	(115)	(491)	(3666)	(11001)
6.6	4.5	5.0	5.7	5.7	5.8	5.2	4.2
(41)	(32)	(29)	(57)	(48)	(119)	(812)	(1795)
11.4	12.0	8.8	10.8	10.7	11.8	11.1	11.6
(70)	(84)	(51)	(109)	(91)	(246)	(1794)	(4884)
77.1	76.2	79.7	83.7	68.1	73.1	77.0	63.5
(473)	(526)	(437)	(818)	(570)	(1539)	(12044)	(27321)
4.0	2.4	3.6	3.7	4.1	4.1	4.0	2.9
(25)	(17)	(21)	(36)	(35)	(92)	(632)	(1283)

CANCER MORTALITY—Hinds, Skaggs and Allen

Table 2 cont.

10	11	12	13	14	15	Kentucky	SEER *
23.5	11.8	17.7	19.6	16.1	21.3	19.5	22.6
(145)	(87)	(109)	(209)	(145)	(447)	(3071)	(8802)
9.2	10.5	7.8	10.0	8.8	10.4	10.3	11.8
(56)	(74)	(45)	(101)	(74)	(219)	(1619)	(4841)
6.1	3.6	6.3	6.2	5.1	4.8	5.1	4.9
(37)	(25)	(33)	(58)	(40)	(107)	(809)	(2231)
6.5	4.9	5.8	6.3	7.1	7.1	6.8	7.5
(40)	(35)	(33)	(62)	(57)	(152)	(1075)	(3290)
1.8	1.2	2.9	2.6	2.5	2.9	2.8	3.1
(11)	(8)	(16)	(26)	(21)	(60)	(431)	(1310)
8.8	7.1	8.7	7.4	9.0	7.5	8.6	9.1
(54)	(51)	(50)	(74)	(75)	(164)	(1363)	(3864)

*Per 100,000 population, standardized to the 1970 U.S. age distribution.

*Rate for males of all races in all areas except Puerto Rico during 1973-77 as reported by Young et al(1).

of the 15 Kentucky districts showed a mortality rate higher than or as high as the SEER rate.

Variation in cancer mortality rates among the 15 Kentucky districts was much greater than the difference found between the Kentucky and SEER rates. To some extent, this interdistrict variation is probably random and reflects the small number of deaths in some districts. However, for several sites, a two-fold or greater difference in mortality rates among districts was present even when the number of deaths in compared districts was substantial (20 or more). These sites were the following: buccopharynx, esophagus, stomach, colon, rectum and prostate among males; stomach, colon, rectum, colorectum, cervix and ovary among females. Figures 1 through 5 illustrate the interdistrict variation graphically for some of these sites chosen on the following bases: esophagus among males (Fig. 1), and stomach among males (Fig. 2) and females (Fig. 3) because these sites have poor survival⁴ and mortality rates are a good reflection of incidence rates; colorectum among males (Fig. 4) and among females (Fig. 5) because this site showed substantial interdistrict variation and a similar geographic pattern for both sexes.

The map for esophageal cancer among males shows a north-south gradient (Fig. 1) with mortality rates generally highest in the northernmost Kentucky districts. A similar pattern was not readily apparent among females, although the small number of female esophageal cancer deaths in most districts made the rates unstable. For stomach cancer, particularly in males, an east-west gradient in mortality rates is suggested (Figs. 2 and 3) with the highest rates in the eastern districts. The geographic mortality gradient for colorectal cancer (Figs. 4 and 5) seems to follow still a third pattern, with the

lowest rates for both males and females in the southeastern districts and the highest rates in the north.

Discussion

As cancer mortality rates are a composite of cancer incidence rates (population risk for cancer) and survival time post-cancer diagnosis, interpretation of population differences in cancer mortality rates is always uncertain. Two populations may have identical cancer mortality rates even though cancer incidence rates are higher in one when that same population also has a longer mean survival time post-cancer diagnosis. If mean survival times for cancer patients in two populations are equal, however, then equal cancer mortality rates should indicate equal incidence rates. For cancer sites such as esophagus, lung, stomach, pancreas and liver, mean survival times post-diagnosis are, in essence, uniformly short in all populations,⁴ so that mortality rates for these cancer sites are very good reflections of incidence rates.

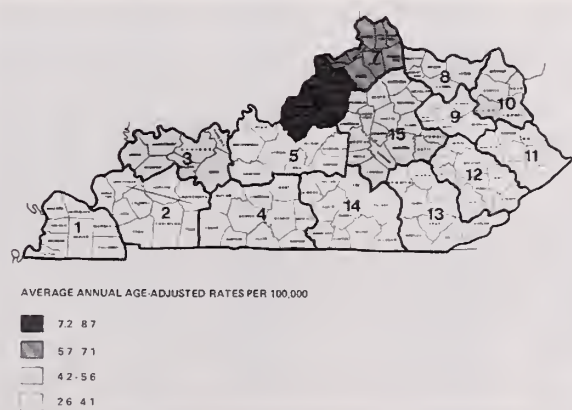


Fig 1: Average annual age-adjusted mortality rates for esophageal cancer among males, by geographic district of residence, 1971-80.

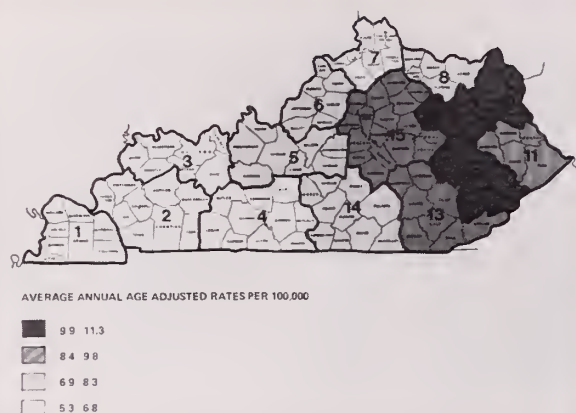


Fig 2: Average annual age-adjusted mortality rates for stomach cancer among males by geographic district of residence, 1971-80.

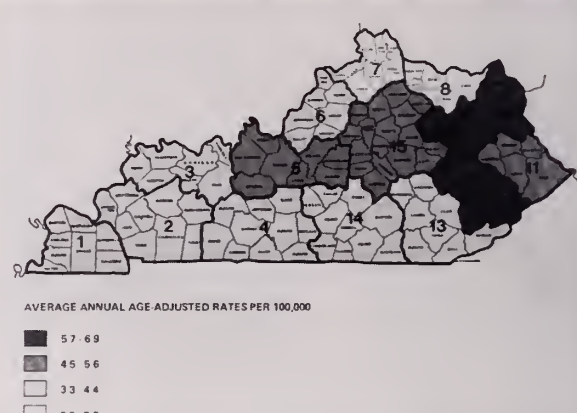


Fig 3: Average annual age-adjusted mortality rates for stomach cancer among females, by geographic district of residence, 1971-80.

TABLE 3. Kentucky Cancer Deaths and Age-Adjusted Average Annual Cancer Mortality Rates* By Selected Site Groups and District, Females, 1971-1980

Sites		DISTRICTS								
		1	2	3	4	5	6	7	8	9
Bucco-Pharynx	Rate	1.5	1.1	1.4	1.7	1.3	2.5	1.5	2.3	1.4
	Number	(21)	(16)	(16)	(21)	(12)	(114)	(27)	(9)	(5)
Esophagus	Rate	1.1	.7	1.0	.7	.5	2.0	1.2	.8	.6
	Number	(14)	(10)	(11)	(8)	(5)	(89)	(21)	(3)	(2)
Stomach	Rate	3.4	4.4	3.6	3.8	5.3	4.0	3.1	2.0	6.9
	Number	(45)	(62)	(45)	(49)	(50)	(189)	(58)	(8)	(23)
Colon	Rate	16.2	18.5	20.4	17.9	14.1	19.8	25.1	15.9	17.6
	Number	(223)	(245)	(254)	(234)	(129)	(933)	(474)	(56)	(61)
Rectum	Rate	2.9	2.9	2.7	2.7	2.7	3.2	4.3	3.0	2.9
	Number	(40)	(35)	(36)	(33)	(25)	(154)	(82)	(11)	(10)
Colo-Rectum	Rate	19.1	21.4	23.1	20.6	16.8	23.0	29.4	18.9	20.5
	Number	(263)	(280)	(290)	(267)	(154)	(1087)	(556)	(67)	(71)
Hepato-Biliary	Rate	4.3	4.2	4.6	5.2	5.7	3.9	4.3	3.5	6.3
	Number	(59)	(59)	(54)	(62)	(51)	(179)	(81)	(12)	(22)
Pancreas	Rate	6.8	6.2	7.7	6.4	6.6	8.0	7.0	5.9	6.1
	Number	(92)	(80)	(93)	(86)	(59)	(367)	(132)	(22)	(20)
Lung	Rate	15.0	14.6	16.4	13.4	16.1	23.4	22.7	12.2	14.9
	Number	(179)	(166)	(180)	(154)	(137)	(1015)	(387)	(38)	(47)
Skin and Lip	Rate	2.3	2.3	1.8	2.5	1.9	1.9	1.6	1.9	2.1
	Number	(28)	(31)	(22)	(32)	(17)	(84)	(29)	(6)	(7)
Breast	Rate	22.0	23.6	26.2	24.8	20.9	27.4	27.9	23.8	24.8
	Number	(260)	(271)	(289)	(292)	(181)	(1215)	(491)	(76)	(75)
Cervix	Rate	5.8	6.1	6.0	6.2	5.0	6.3	6.8	6.3	10.3
	Number	(67)	(62)	(63)	(69)	(43)	(273)	(110)	(20)	(31)
Uterus†	Rate	11.6	10.9	10.1	11.8	8.9	10.8	12.1	12.4	13.5
	Number	(143)	(122)	(111)	(138)	(77)	(481)	(207)	(41)	(41)
Ovary	Rate	10.1	8.0	7.4	7.9	6.2	8.6	8.7	8.6	11.6
	Number	(119)	(95)	(81)	(95)	(53)	(380)	(152)	(28)	(38)
Kidney & Bladder	Rate	3.4	4.5	4.1	3.3	4.2	4.6	5.8	3.5	4.5
	Number	(50)	(59)	(49)	(42)	(39)	(217)	(110)	(13)	(16)
Nervous System	Rate	3.0	3.7	3.9	2.7	3.7	1.4	4.2	3.1	3.5
	Number	(34)	(39)	(38)	(28)	(32)	(185)	(69)	(9)	(10)
Lymphomas	Rate	4.3	4.1	4.7	3.0	3.8	4.9	3.9	2.1	3.7
	Number	(55)	(51)	(53)	(36)	(35)	(218)	(69)	(8)	(12)
Multiple Myeloma	Rate	1.8	2.1	2.2	2.0	1.8	2.2	2.1	2.7	2.4
	Number	(23)	(28)	(26)	(26)	(16)	(100)	(38)	(9)	(7)
Leukemias	Rate	5.3	4.7	6.6	3.7	5.8	5.3	4.8	3.4	4.8
	Number	(67)	(61)	(80)	(43)	(52)	(243)	(87)	(12)	(15)

CANCER MORTALITY—Hinds, Skaggs and Allen

For the poor survival sites listed above, Kentucky showed little difference in age-adjusted cancer mortality rates when compared to the SEER populations, suggesting little or no comparative difference in cancer risk for Kentuckians. The small differences which were present were consistent in direction for males and females, and showed Kentucky mortality rates for esophagus, stomach and pancreas cancer to be lower, while rates for hepatobiliary and lung cancer were higher than SEER rates.

Risk factors for esophageal cancer include alcohol consumption and cigarette smoking with certainty,^{5,6} and a number of dietary deficiencies have also been suggested.^{7,8} To date the dietary factors which may in-

crease risk of esophageal cancer have not been well defined, but may include deficiencies of various micronutrients such as vitamin A and carotene, vitamin C, thiamin, nicotinic acid, zinc and riboflavin.^{7,8} Increased risk is also associated with urbanization and Eastern European heritage, but these factors are most likely to be associated with risk through correlation with drinking, smoking and dietary habits.⁹

The risk of stomach cancer has long been known to be highest among populations with low socioeconomic status,¹⁰ but most investigators believe this association simply reflects a high-risk diet usually found among the poor. In general, such a diet is high in carbohydrates and low in fresh fruits and vegetables. Populations at

10	11	12	13	14	15	Kentucky	SEER*
.7	1.8	1.6	1.4	2.0	2.1	1.9	1.9
(6)	(14)	(10)	(19)	(20)	(57)	(367)	(1034)
1.5	.5	1.3	1.3	.1	1.4	1.2	1.6
(11)	(4)	(8)	(15)	(1)	(37)	(239)	(905)
6.4	5.2	6.8	4.1	3.8	4.6	4.2	5.0
(50)	(42)	(45)	(54)	(41)	(129)	(890)	(2860)
18.4	10.8	9.4	13.9	14.7	19.0	18.1	16.8
(145)	(86)	(62)	(175)	(152)	(540)	(3769)	(9580)
3.2	2.7	2.9	2.7	2.0	2.1	2.9	3.3
(25)	(22)	(18)	(31)	(22)	(58)	(602)	(1888)
21.6	13.5	12.3	16.6	16.7	21.1	21.0	20.1
(170)	(108)	(80)	(206)	(174)	(598)	(4371)	(11468)
7.0	5.9	4.5	5.3	4.7	4.0	4.6	2.3
(54)	(47)	(29)	(66)	(48)	(116)	(939)	(1338)
5.3	6.8	4.3	5.8	7.0	7.7	7.0	7.5
(41)	(55)	(28)	(73)	(70)	(213)	(1431)	(4225)
19.6	16.0	15.5	17.1	13.2	17.2	18.1	16.2
(142)	(123)	(93)	(191)	(127)	(446)	(3425)	(8753)
2.2	1.7	1.9	3.0	2.9	1.8	2.0	1.7
(17)	(13)	(13)	(38)	(29)	(49)	(415)	(959)
22.9	17.9	16.7	18.6	17.4	25.6	24.0	27.9
(169)	(138)	(99)	(206)	(161)	(670)	(4593)	(15176)
5.9	8.8	5.7	9.3	6.0	6.1	6.5	4.1
(41)	(69)	(33)	(101)	(52)	(159)	(1193)	(2221)
11.2	12.2	9.0	14.3	11.4	11.2	11.4	8.4
(80)	(96)	(54)	(160)	(106)	(295)	(2152)	(4652)
8.1	7.7	4.2	6.4	5.7	8.2	8.0	8.7
(58)	(58)	(26)	(75)	(54)	(215)	(1527)	(4708)
6.2	3.7	5.0	4.6	3.3	4.6	4.4	4.3
(47)	(29)	(32)	(59)	(34)	(130)	(926)	(2447)
3.6	3.5	3.1	3.3	3.5	3.4	3.7	3.2
(25)	(27)	(19)	(36)	(30)	(85)	(666)	(1664)
4.1	3.3	2.6	3.8	5.2	5.0	4.3	5.0
(30)	(26)	(17)	(47)	(51)	(137)	(845)	(2770)
1.4	1.1	1.8	2.3	2.2	2.3	2.1	2.3
(11)	(8)	(12)	(29)	(22)	(62)	(417)	(1272)
5.3	3.7	6.0	4.2	4.5	5.5	5.1	5.2
(38)	(29)	(37)	(53)	(44)	(149)	(1010)	(2885)

*Per 100,000 population, standardized to the 1970 U.S. age distribution.

*Rate for females of all races in all areas except Puerto Rico during 1973-77 as reported by Young et al(1).

‡Total uterus, including cervix and corpus.

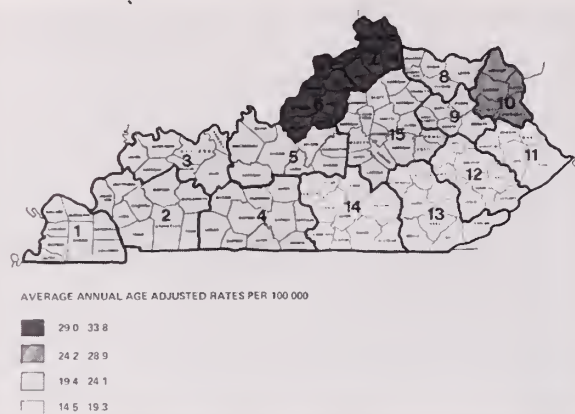


Fig 4: Average annual age-adjusted mortality rates for colorectal cancer among males by geographic district of residence, 1971-80.

increased risk for stomach cancer have also been noted to consume more preserved fish and/or meats and possibly more salt.¹¹⁻¹³ Current hypotheses postulate the endogenous formation of carcinogenic nitrosamines or nitrosamides from nitrites and secondary amines or amides in high-risk foods, and blockage of such carcinogen formation by vitamin C.¹²⁻¹⁴ Lack of good refrigeration for foods may also contribute to stomach cancer risk by increasing the exogenous formation of nitroso compounds and increasing the need for extensive salting of foods.¹³ Although increased stomach cancer risk has also been found for certain occupational groups, and specifically coal miners,¹⁵ it is difficult to separate any increased risk due to occupational exposure from risk due to dietary habits of this lower socioeconomic group.

Increased risk for primary liver cancer has been most convincingly demonstrated to be associated with hepatitis B virus infection.¹⁶ Alcoholic cirrhosis and aflatoxin consumption in foods are other probable risk factors.^{17,18} One study has demonstrated a positive association between the typhoid carrier state and risk of hepatobiliary cancer, and a variety of possible mechanisms were suggested.¹⁹ Among women, excess body weight is correlated with an increased risk of mortality from cancer of the gallbladder and biliary passages.²⁰ At least one notable occupational risk factor, vinyl chloride monomer, has been identified for the relatively rare angiosarcoma of the liver.²¹

Several risk factors for cancer of the pancreas have been suggested in epidemiologic studies, but none has been very strongly associated with risk, and findings have sometimes been inconsistent. Cigarette smoking,

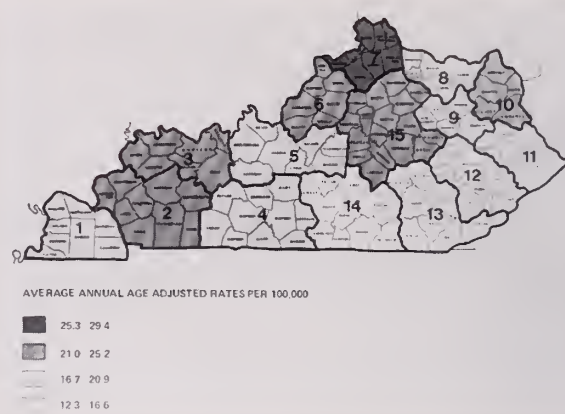


Fig 5: Average annual age-adjusted mortality rates for colorectal cancer among females by geographic district of residence, 1971-80.

although only weakly associated, has been the most frequently identified pancreatic cancer risk factor.²² Others, including alcohol,²³ coffee²⁴ and diabetes²⁵ have also been suggested by several studies.

The most important known risk factor for lung cancer is, of course, cigarette smoking,²² as has been demonstrated by hundreds of studies over the past 30 years. Recently, several epidemiologic studies have also suggested that relatively low dietary intake of vitamin A and/or beta-carotene may increase lung cancer risk.^{26,27} A large number of occupational lung carcinogens have also been identified, including asbestos, arsenic, chromates, beryllium, nickel and fossil fuel products.²⁸

Although it is beyond the scope of this paper to discuss whether the above site-specific risk factors might explain the small differences noted between mortality rates for Kentucky and SEER, perhaps others might be aware of pertinent information. Even more interesting might be attempts to explain the rather striking intra-state geographical patterns of mortality rates observed for esophageal cancer in males, and stomach and colorectal cancer in both sexes. We will not attempt to do so due to a lack of information on geographic distribution of known and suspected risk factors.

Colorectal cancer is associated with relatively good survival,⁴ and thus mortality rates do not necessarily reflect incidence rates. Nevertheless, we choose to display the geographic distribution of mortality rates for this site for several reasons: interdistrict comparison shows a greater than two-fold range of rates for both sexes, the geographic pattern of rates is similar for both sexes, and there is no evidence that the observed geographic pattern is due to variation in survival rates. The

last point is based on an analysis of the correlation of colorectal mortality rates with the median income of the 15 districts*. Among both males and females the correlation coefficient is strongly positive (+ 0.89 and + 0.83 respectively) and significant ($p < 0.001$). As superior survival of cancer patients is generally positively associated with higher socioeconomic class,²⁹ poor survival of colorectal cancer patients seems a very unlikely explanation of high mortality rates in the districts where they were found. Instead, the observed geographic pattern probably reflects a true variation in colorectal cancer risk.

An additional observation suggesting that the observed geographic variation of colorectal cancer mortality is a reflection of cancer risk is the inverse interdistrict association between colorectal and stomach cancer rates. The correlation coefficient for these two mortality rates among the 15 Kentucky districts during 1971-80 was -0.31 for males and -0.38 for females. Although these values are not statistically significant ($p > 0.05$), the negative correlation is consistent with previously observed inverse associations between incidence rates for these two cancer sites.³⁰

The risk factors for colorectal cancer, as for stomach cancer, seem to be primarily dietary. Although the epidemiologic evidence is not entirely consistent, high colorectal cancer risk is generally associated with high dietary fat^{31,32} and possibly low dietary fiber.^{31,33} Increased risk of colorectal cancer mortality is also associated with excess body weight, particularly in men,²⁰ but this may be a reflection of high dietary fat intake. A relatively high risk may also be associated with low consumption of cruciferous vegetables (cabbage, broccoli, cauliflower),³⁴ and vitamins C and E and other factors have also been suggested as protective.³⁵ Beer consumption may be associated with increased risk of rectal cancer,³⁶ but again the evidence is not consistent.³⁷

A very large proportion of cancer is either preventable³⁸ or curable,³⁹ and the observation of substantial geographic variation in Kentucky cancer mortality rates for certain sites suggests that a potential for reduction of cancer mortality exists in this state. For some sites, such as buccopharynx and esophagus in males, stomach, colorectum, prostate, cervix and ovary, there appears to be a potential for reducing cancer mortality by as much as half in some districts, either through reducing incidence or improving survival. The availability of data on site-specific cancer incidence and survival rates, such as might be forthcoming from a state-wide

cancer registry, would be an important contribution to understanding how such prevention might be approached. Such data would indicate where primary prevention (risk factor reduction), secondary prevention (screening for pre-symptomatic disease), tertiary prevention (treatment of clinical disease) or a combination of approaches might be most effective in decreasing cancer mortality in Kentucky.

- References** 1. Young JL, Percy CL, Asire AJ (Eds.): Surveillance, Epidemiology and End Results: Incidence and Mortality Data, 1973-77. *Natl Cancer Inst Monogr* 57, NIH Pub. No. 81-2330, 1981. 2. MacDonald EJ, Heinze EB: Epidemiology of Cancer in Texas, Raven Press, New York, 1978. 3. State Center for Health Statistics: Selected Vital Statistics and Planning Data, years 1971 through 1980, Health and Vital Statistics Office, Department for Human Resources, Frankfort, KY. 4. Axtell LM, Asire AJ, Myers MH: Cancer Patient Survival. Report No. 5, DHEW Pub. No. (NIH) 77-992, 1976. 5. Wynder EL, Bross IJ: A study of etiological factors in cancer of the esophagus. *Cancer* 14:389-413, 1961. 6. Pottern LM, Morris LE, Blot WJ, Ziegler RG, Fraumeni JF: Esophageal cancer among black men in Washington, D.C. I. Alcohol, tobacco and other risk factors. *JNCI* 67:777-783, 1981. 7. Ziegler RG, Morris LE, Blot WJ, Pottern LM, Hoover R, Fraumeni JF: Esophageal cancer among black men in Washington, D.C. II. Role of nutrition. *JNCI* 67:1199-1206, 1981. 8. Van Rensburg SJ: Epidemiologic and dietary evidence for a specific nutritional predisposition to esophageal cancer. *JNCI* 67:243-251, 1981. 9. Fraumeni JF, Blot WJ: Geographic variation in esophageal cancer mortality in the United States. *J Chron Dis* 30:759-767, 1977. 10. Graham S, Levin M, Lilienfeld AM: The socioeconomic distribution of cancer of various sites in Buffalo, N.Y., 1948-1952. *Cancer* 13:180-191, 1960. 11. Graham S: Future inquiries into the epidemiology of gastric cancer. *Cancer Res* 35: 3464-3468, 1975. 12. Weisburger JH, Raineri R: Dietary factors and the etiology of gastric cancer. *Cancer Res* 35:3469-3474, 1975. 13. Joosens JV, Geboers J: Nutrition and gastric cancer. *Proc Nutr Soc* 40:37-46, 1981. 14. Correa P, Haenszel W, Cuello C, Tannenbaum S, Archer M: A model for gastric cancer epidemiology. *Lancet* 2:58-60, 1975. 15. Rockette HE: Cause specific mortality of coal miners. *JOM* 19:795-801, 1977. 16. Beasley RP, Hwang L-Y, Lin C-C, Chien C-S: Hepatocellular carcinoma and hepatitis B virus. *Lancet* 2: 1129-1133, 1981. 17. Lee FI: Cirrhosis and hepatoma in alcoholics. *Gut* 7:77-85, 1966. 18. Van Rensburg SJ, Kirsipuu A, Coutinho LP, Vander Watt, JJ: Circumstances associated with the contamination of food by aflatoxin in a high primary liver cancer area. *S Afr Med J* 49:877-883, 1975. 19. Welton JC, Marr JS, Friedman SM: Association between hepatobiliary cancer and typhoid carrier state. *Lancet* 1:791-794, 1979. 20. Lew EA, Garfinkel L: Variations in mortality by weight among 750,000 men and women. *J Chron Dis* 32:563-576, 1979. 21. Falk H, Herbert J, Crowley S, Ishak KG, Thomas LB, Popper H, Caldwell GG: Epidemiology of hepatic angiosarcoma in the United States, 1964-1974. *Environ Health Perspec* 41:107-113, 1981. 22. U.S. Dept. of Health, Education and Welfare: Smoking and Health, a report of the Surgeon General. DHEW Pub. No. (PHS) 79-50066, pp. 5-1 to 5-74, 1979. 23. Burch GE, Ansari A: Chronic alcoholism and carcinoma of the pancreas. *Arch Int Med* 122:273-275, 1968. 24. MacMahon B, Yen S, Trichopoulos D, Warren K, Nardi G: Coffee and cancer of the pancreas. *N Engl J Med* 304:630-633, 1981. 25. Karmody AJ, Kyle J: The association between carci-

CANCER MORTALITY—Hinds, Skaggs and Allen

nomia of the pancreas and diabetes mellitus. *Brit J Surg* 56:362–364, 1969. **26.** Mettlin C, Graham S, Swanson M: Vitamin A and lung cancer. *JNCI* 62:1435–1438, 1979. **27.** Shekelle RB, Lepper M, Liu S, Maliza C, Raynor WJ, Rossif AH, et al: Dietary vitamin A and risk of cancer in the Western Electric Study. *Lancet* 2:1185–1190, 1981. **28.** Cole P, Goldman MB: Occupation, in Persons at High Risk of Cancer, Fraumeni JF (ed.), Academic Press, New York, 1975, pp. 167–184. **29.** Berg JW, Ross R, Latourette HB: Economic status and survival of cancer patients. *Cancer* 39:467–477, 1977. **30.** Waterhouse J, Muir C, Correa P, Powell J (eds): Cancer Incidence in Five Continents. *Int Agency Res Cancer*, Lyon, 1976. **31.** Dales LG, Friedman GD, Ury HK, Grossman S, Wilimas SR: A case-control study of relationships of diet and other traits to colorectal cancer in American Blacks. *Am J Epidemiol* 109:132–144, 1979. **32.** Jain M, Cook GM, Davis FG, Grace MG, Howe GR, Miller AB: A case-control study of diet and colorectal cancer. *Int J Cancer* 26:757–768, 1980. **33.** Modan B, Barell V, Lubin F, Modan M, Greenberg RA, Graham S: Low-fibre intake as an etiologic factor in cancer of the colon. *J Natl Cancer Inst* 55:15–18, 1975. **34.** Graham S, Dayal H, Swanson M, Mittelman A and Wilkinson G: Diet in the epidemiology of cancer of the colon and rectum. *J Natl Cancer Inst* 61:709–714, 1978. **35.** Bruce WR, Eyssen GM, Ciampi A, Dion PW, Boyd N: Strategies for dietary intervention studies in colon cancer. *Cancer* 47:1121–1125, 1981. **36.** Dean G, MacLennan R, McLoughlin H, Shelley E: Causes of death of blue-collar workers at a Dublin brewery, 1954–73. *Br J Cancer* 40:581–589, 1979. **37.** Jensen OM: Cancer morbidity and causes of death among Danish brewery workers. *Int J Cancer* 23:454–463, 1979. **38.** Doll R and Peto R: The causes of cancer: Quantitative estimates of avoidable risks of cancer in the U.S. today. *JNCI* 66:1191–1308, 1981. **39.** Myers MH, Hankey BF: Cancer patient survival experience: Trends in survival 1960–63 to 1970–73. NIH Pub. No. 80–2148. U.S. D.H.H.S., 1980.

From the Department for Health Services, Cabinet for Human Resources, 275 East Main Street, Frankfort, Kentucky 40621

Acknowledgements: The authors are grateful to Joyce Bothe and Ruby Adams for technical assistance and to Pamela Thurman for manuscript preparation.

**Personal Communication. E.G. Staley, Senior Statistician, Health Information and Vital Statistics, Cabinet for Human Resources, Frankfort, Kentucky.*

A Trial of Low-Dose Heparin Therapy In Open Heart Surgery Patients

ALLAN M. LANSING, M.D., Ph.D., ZAHY H. MASRI, M.D. and ROLAND E. GIRARDET, M.D.

On an active cardiovascular surgical service, pulmonary embolism was the major cause of postoperative death. A prospective randomized study was performed to determine whether low-dose heparin therapy, alone or combined with aspirin, could reduce its incidence. A total of 2211 adult patients, half of whom served as controls, were studied over a 28-month period. No significant difference in the frequency of pulmonary embolism or other postoperative complications was found between the treated and control patients. However, one-fourth of the patients had been transferred for surgery after medical treatment and hospitalization elsewhere; this group accounted for one-third of the cases of pulmonary embolism, one-third of all deaths, and almost half of the postoperative deaths resulting from embolism. These differences were statistically significant.

Venous thromboembolic disease is a prime source of morbidity and mortality in patients undergoing major surgical procedures. On an active cardiovascular surgery service, monthly reviews of morbidity and mortality showed that the leading cause of death was pulmonary embolism, followed by arrhythmia and stroke. Elevation of the legs, early ambulation, administration of dextran, and aspirin therapy were tried but proved to be ineffective. Small doses of heparin have been reported to be useful for prophylaxis of pulmonary embolism in other major surgical procedures but have not been reported in open heart cases.¹⁻⁸ Consequently, a prospective, randomized study was begun to determine

whether subcutaneous heparin, alone or combined with aspirin, could reduce the incidence of pulmonary embolism. The study comprised 2211 adult open heart surgery patients and was conducted over a 28-month period.

Methods

Preoperative clotting studies including bleeding time, clotting time, prothrombin time, partial thromboplastin time, platelet count, and history of bleeding diathesis were obtained in all patients.

The patients were then assigned either to a treatment group or a control group, depending on the hospital number: odd-numbered patients were included in the treated series and even numbered patients in the control group. A total of 1112 patients served as controls; the remaining 1099 were treated with low doses of heparin according to the following regimen:

1. Series A: These patients received 5000 units of heparin subcutaneously every 12 hours, beginning on the morning of the first postoperative day and continuing until discharge.
2. Series B: These patients received 5000 units of heparin subcutaneously every eight hours, beginning on the morning of the first postoperative day and continuing until discharge.
3. Series C: These patients received 5000 units of heparin subcutaneously every eight hours, beginning on the morning of the first postoperative day, and 10 grains of aspirin every evening, beginning on the same day and continuing until discharge.

The heparin was started as early as possible after the operative procedure, routinely at 8:00 a.m. the following day. By this time, usually 14 to 21 hours after operation, major mediastinal drainage had ceased. If

TABLE 1
Series A
Heparin 5000 units
q 12 hours
Receiving

	heparin therapy	%	Control	%
Deaths	14	4.2	15	4.5
Pulmonary embolism	11	3.3	8	2.4
Phlebitis	7	2.1	8	2.4
Myocardial infarction	5	1.5	3	0.9
Stroke	8	2.4	8	2.4
Bleeding	4	1.2	5	1.5
Number of cases	333		337	

TABLE 2
Series B
Heparin 5000 units
q 8 hours
Receiving

	heparin therapy	%	Control	%
Deaths	10	2.5	22	5.3
Pulmonary embolism	13	3.3	19	4.6
Phlebitis	10	2.5	22	5.3
Myocardial infarction	9	2.3	13	3.1
Stroke	11	2.8	14	3.4
Bleeding	2	0.5	4	1.0
Hematoma	3	0.8	7	1.7
Number of cases	395		416	

TABLE 3
Series C
Heparin 5000 units
q 8 hours
and
ASA 10 gr. daily
Receiving

	heparin therapy	%	Control	%
Deaths	11	3.0	15	4.2
Pulmonary embolism	17	4.6	16	4.5
Phlebitis	6	1.6	8	2.2
Myocardial infarction	1	0.3	6	1.7
Stroke	10	2.7	5	1.4
Bleeding	2	0.5	6	1.7
Hematoma	1	0.3	2	0.6
Number of cases	371		359	

TABLE 4
Patients receiving
sodium warfarin
after valve replacement
Receiving

	heparin therapy	Control
Series A	69	61
Series B	68	80
Series C	47	53

excessive bleeding was still occurring, the therapeutic regimen was delayed until the second postoperative day. Such a delay occurred in fewer than 1% of all cases. We observed no increase in postoperative bleeding once the heparin therapy was instituted. In cases of valve replacement, patients were started on sodium warfarin after the chest drainage tubes were removed. When the prothrombin time reached a therapeutic range, heparin was discontinued.²

A few patients were excluded from the study because of complicating factors such as:

1. Allergy to aspirin or development of gastritis.
2. Development of bleeding or excessive bruising during the treatment period.
3. History of gastrointestinal bleeding or its development while on the heparin treatment.
4. Religious beliefs which mandated undergoing surgery without infusion of blood or blood products; Jehovah Witness patients comprised this group.

Only 28 patients were excluded over the two and one-half years. Thus the series included almost our total experience with adult open heart surgery during that time.

The following complications were recorded when they occurred:

1. **Pulmonary embolism** diagnosed clinically by elevated heart rate, rapid respiration, pleuritic

pain, bloody sputum, or diaphoresis. Pleural rub was detected by physical examination and chest films were inspected for the presence of segmental atelectasis. When these conditions existed, radioisotope perfusion scanning of the lungs with Technetium-99m-tagged albumin was done to look for segmental defects in pulmonary perfusion. The radiologist's assessment of the probability of pulmonary embolus followed standard guidelines and was as follows:^{9,10}

- Normal lung scan: less than 1% chance of pulmonary embolism.
- Small subsegmental defects: less than 10% chance of pulmonary embolism.
- Single lobar or segmental defect or many segmental defects: 50% chance of pulmonary embolism.
- Multiple segmental defects with one lobar defect, particularly combined with appropriate changes in the chest x-ray and arterial blood gases: 90% chance of pulmonary embolism.

A low arterial pO₂ was considered highly suggestive when the clinical picture was that of pulmonary embolism and the chest x-ray did not show pulmonary congestion or significant atelectasis.² Ventilation-perfusion scans and fibrinogen leg scanning were not available as screening procedures at this institution. Pulmonary angiography had been planned for massive pulmonary emboli for which pulmonary embolectomy might be considered, but the occasion for this did not

arise. When permission was received, patients who died were examined post-mortem for pulmonary emboli that could have contributed to death.

2. **Venous thrombosis** in the leg as diagnosed by increased circumference of the calf or thigh, palpable tender veins, and a positive Homan's sign along with cyanosis and pain in the region. Venography, which is useful in patients with unexplained swelling or recurrent phlebitis, was seldom used in postoperative patients for fear of producing phlebitis or worsening that which might already be present. Patients who developed local edema, especially unilateral, that did not respond to diuretics were also considered to have deep venous thrombosis. Doppler venous studies and impedance plethysmography were rarely employed because they were difficult to interpret and apply in the postoperative bypass patient with leg incisions.
3. **Excessive postoperative bleeding** as defined by the patient's need for more than two units of blood transfusion or for surgical exploration. After checking the clotting factors, fresh frozen plasma, platelets, or protamine were administered as indicated.
4. **Hematoma** that delayed the patient's hospital discharge, required drainage, or resulted in skin necrosis or abscess.
5. **Myocardial infarction** as determined by the clinical picture, electrocardiogram, serum enzymes, and occasionally by pyrophosphate scans.
6. **Postoperative stroke** as diagnosed by the occurrence of neurological deficit, either temporary or permanent. If mental confusion alone was the presenting feature, an electroencephalogram was done to look for a local lesion defined by a slow wave focus. Similarly, any postoperative seizures were investigated by electroencephalography for an area of infarction.
7. **Death** of the patient in hospital regardless of the cause or the lapse of time after surgery.

The statistical significance of the results was checked by the Chi square method.

Results

The 2211 adult patients in this series had a mean age of 57 years with a range of 27 years to 90 years. Male to female ratio was 2:1. Coronary bypass grafts without concomitant procedures were performed in 75%

of the patients with an in-hospital mortality rate of 1.2%. Ten percent of the patients had mitral valve replacements with hospital mortality of 2.0%, and 7.5% of the patients had aortic valve replacements with subsequent hospital mortality of 1.3%. The remaining patients had miscellaneous or combined procedures.

1. Series A (heparin every 12 hours): This series included 333 treated patients and 337 controls (Table I). No significant difference in the incidence of postoperative complications was found between the treated patients and the control group.
2. Series B (heparin every eight hours): In this series there were 395 treated patients and 416 controls (Table II). The slightly higher incidence of phlebitis and death in the controls was not significant. There were no other differences between the groups in incidence of pulmonary embolism, myocardial infarction, stroke, bleeding, or hematoma.
3. Series C (heparin every eight hours plus aspirin): No significant difference in the incidence of major complications or death was found between the 371 treated patients and 359 controls (Table III).
4. The control groups in Series A, B, and C were also compared to determine significant differences resulting from alterations in technique, control of heparinization during the operation, and clotting restoration at the end of the procedure. The frequency of diagnosed pulmonary embolism increased from 2.4% to 4.6% during this period, but this was not significant and probably represented only an increased awareness of the problem. The slightly increased occurrence of phlebitis and myocardial infarction in Series B was not significant, nor was the slightly decreased frequency of stroke in Series C. Postoperative bleeding remained a minor factor in morbidity, amounting to 1.2% in Series A, 1.0% in Series B, and 1.7% in Series C.

Among the patients who underwent valve replacement and received sodium warfarin after removal of chest drainage tubes (184 treated patients and 194 controls; Table IV), no significant difference was found between the incidence of postoperative complications in the treated patients and the control groups. The occurrence of death in patients who did not receive the heparin protocol increased in Series B, a mathematically significant increase ($P < 0.01$) which diminished in importance when the patients's case histories were reviewed. Four of these patients were 70 years old or older and two were young women with severe rheumatic

heart disease. Only one of these patients was diagnosed as having pulmonary embolism, a 72-year-old man who was transferred to us for surgery after a period of hospitalization elsewhere. We concluded that supplementary administration of sodium warfarin did not reduce the risk of pulmonary embolism or death for the patients who received it.

Mortality in the entire series was low: 76 of the 2211 patients died in hospital, resulting in a mortality rate of 3.4%. Pulmonary embolism was diagnosed in 84 patients (3.7%) and was the cause of death or major contributing factor in 27 patients (1.2%). These 27 patients represented 35.5% of all patients who died in hospital. Thus pulmonary embolism was the major cause of death in patients who underwent open heart surgery at our institution.

We considered the patients's previous histories in an attempt to find a reason for this frequency. Twenty-eight of the 84 patients in this study who were diagnosed as having pulmonary embolism had been transferred from other institutions following cardiac catheterization or failure of medical treatment, and 12 of the 27 patients who died from pulmonary embolism had been transferred. We found it statistically significant that the patients who were transferred (23% of the total group) accounted for 33% of the cases of pulmonary embolism ($P < 0.05$) and 44% of the deaths resulting from pulmonary embolism ($P < 0.025$).

Discussion

It is evident from this study that small doses of heparin given either every 12 hours, every eight hours, or every eight hours with aspirin were not effective in reducing the occurrence of phlebitis or clinical pulmonary embolism in open heart surgical patients. We acknowledge that our patients did not receive heparin one hour before the operation as recommended in other reports.^{1,3,5-8} However, open heart patients receive a much larger dose of heparin 30 to 40 minutes after the procedure is begun which is neutralized by protamine sulfate at the end of the operation. Thus the small preoperative dose would be lost in the massive total heparinization and would be removed from the system immediately at the end of the cardiac bypass.

Ideally, diagnosis of pulmonary embolism would be based on post-mortem examinations of all patients who die, pulmonary angiograms for all patients with suspicious chest pain or clinical findings, and a combination of perfusion and ventilation-perfusion scans for other

patients. These procedures are not always practical and the diagnosis is usually made after review of physical signs and symptoms, chest x-ray, and perfusion lung scan. With increased experience and an appropriate degree of skepticism, this approach is reasonably reliable.² Sudden unexplained death did occur in some patients in our study for whom permission for post-mortem could not be obtained, and these deaths may have resulted from pulmonary embolism, arrhythmia, or some other cause. Thus some cases of massive pulmonary embolism may not have been included in our evaluation of postoperative deaths. However, when all unexplained deaths were grouped with deaths known to have been caused by pulmonary embolism, a significant difference was still not found between the control and treated groups. On the other hand, patients with clinically-silent small pulmonary emboli may have also been missed, but since our initial curiosity about the possible benefits of low-dose heparin was aroused by awareness of pulmonary embolism as a prime cause of morbidity and mortality, cases that did not reach this level could not be evaluated in this study and were not considered to be clinically important.

The perfusion scan was employed as the standard screening and diagnostic procedure. A bolus of albumin tagged with Technetium-99m was given intravenously and pulmonary blood flow studied.⁷ A normal perfusion scan was thought to rule out pulmonary embolism effectively.^{2,9,11} Non-embolic causes of abnormal lung scans include congestive heart failure, chronic obstructive pulmonary disease, pneumonia, and atelectasis, all of which are common among postoperative open heart patients.¹² Consequently, careful assessment of the patient and analysis of the chest x-ray were necessary in interpreting the lung scan. Because of our increased awareness we tended to order perfusion scans more frequently, but if a segmental defect in the lung scan supported the clinical picture, arterial blood gases, and the chest film, we believed that diagnosis of embolism was reasonably secure. Thus despite the scan's deficiencies, we began to consider the perfusion scan to be the most practical screening tool.

Pulmonary angiography could have been performed in all suspicious cases, but because it is an invasive study with substantial risk and expense, we did not wish to use it unless life-saving pulmonary embolectomy was being considered. Patients who suddenly became extremely ill with cardiopulmonary arrest were not suited for such a procedure, and other patients were

studied by procedures that involved less risk. However, in controversial cases, a pulmonary angiogram was performed to decide whether long-term anticoagulation would be therapeutic; if the angiogram was negative, anticoagulation was not recommended. Under these conditions the risks of the pulmonary angiogram were considered to be less than those of anticoagulation, which has been reported to have up to 30% morbidity, particularly from hemorrhage, and even a 2% mortality over several months.^{9,11}

In other major surgical cases, a positive correlation has been found between the incidence of pulmonary embolism and length of the operative procedure, age of the patient, and previous serious illness, factors all present in the open heart surgical patient.^{2,4} The patients in our study represented a high-risk group since most of the procedures lasted two or three hours, most patients for coronary bypass were between 55 and 70 years of age, and many were transferred for operation after hospitalization elsewhere for serious illness. We suspect that iliac or femoral venous thrombosis was present **before** operation in many cases. Also we suspect that the low operative mortality rate gives more prominence to pulmonary embolism as a morbidity factor, and because of our awareness of the problem, we are much more suspicious of the presence of pulmonary emboli and tend to make the diagnosis more frequently.

Our study revealed that patients in the series who had been hospitalized elsewhere for treatment of severe heart failure or angina and who then underwent cardiac catheterization and were transferred for surgery were more likely to suffer pulmonary embolism. More than half (55%) of our patients are admitted electively for surgery, while nearly a fourth (22%) are operated upon immediately after catheterization in this hospital. However, another fourth (23%) of our patients are transferred from another institution following medical treatment or cardiac catheterization there, having remained hospitalized because they were too ill to leave or failed to respond to treatment. These patients have already been confined to bed at least one or two weeks before our cardiovascular surgery service is consulted and hence may be higher risks for pre-existing venous thrombosis and postoperative embolism. The patients transferred to our institution accounted for a third of the pulmonary emboli, a third of the postoperative deaths, and almost half of the deaths resulting from pulmonary emboli. This previous hospitalization was found to have a statistically significant bearing upon the patient's tendency to develop pulmonary embolism and his likelihood

to die from this complication. We have seen massive pulmonary emboli within three days after surgery, far too early for the procedure itself to have been the cause. We do not know how to prevent this because the patients are too ill to be discharged from hospital and a longer delay before operation is usually unwarranted. Although we are satisfied that needed surgery should not be inordinately delayed, we have had to resign ourselves to a higher incidence of cases transferred with pre-existing venous thrombosis which has not been affected by the low-dose heparin protocol.

Since we found no difference in the occurrence of phlebitis or clinically evident pulmonary embolism between patients who did and did not receive heparin therapy, we discontinued the prophylactic use of low-dose heparin with or without aspirin on the cardiovascular surgery service. However, because half of all postoperative venous thrombi may form before the patient leaves the recovery room,^{1,3,4} we are planning a new study for open heart patients to evaluate the possible benefits of heparin administered preoperatively, beginning the day of transfer to the surgical service. Pulmonary angiography will be used more frequently to establish a specific diagnosis in those patients whose perfusion scans show neither high nor low probability of pulmonary embolism.

References 1. Sherry S. Preventing pulmonary embolism with heparin in low doses. *Postgrad Med* 1976; 59:80-84. 2. Bell WR, Simon TL. Current status of pulmonary thromboembolic disease: pathophysiology, diagnosis, prevention, and treatment. *Am Heart J* 1982; 103:239-262. 3. Moser K. Pulmonary embolism—state of the art. *Am Rev Respir Dis* 1977; 115:829-852. 4. Borow M, Goldson H. Postoperative venous thrombosis—evaluation of five methods of treatment. *Am J Surg* 1981; 141:245-251. 5. An international multicentre trial: Prevention of fatal postoperative pulmonary embolism by low doses of heparin. *Lancet* 1975; II:45-51. 6. Council on Thrombosis of the American Heart Association. Prevention of venous thromboembolism in surgical patients by low-dose heparin. *Circulation* 1977; 55:423A-426A. 7. Rosenow EC, Osmundson PJ, Brown ML. Pulmonary embolism. *Mayo Clin Proc* 1981; 56:161-178. 8. Kakkar VV. Deep vein thrombosis—detection and prevention. *Circulation* 1975; 51:8-19. 9. Cheely R, McCartney WH, Perry JR, et al. The role of noninvasive tests versus pulmonary angiography in the diagnosis of pulmonary embolism. *Am J Med* 1981; 70:17-22. 10. Bell WR, Simon TL. A comparative analysis of pulmonary perfusion scans with pulmonary angiograms. *Am Heart J* 1976; 92:700-706. 11. Robin ED. Overdiagnosis and overtreatment of pulmonary embolism: the emperor may have no clothes. *Ann Intern Med* 1977; 87:775-781. 12. Meek AG, Bell WR. Current practices in venous thromboembolic disease. (Part 1). *Hospital Medicine*, October 1981; 57-72. 13. Bell WR, Simon TL, DeMets DL. Clinical features of submassive and massive pulmonary emboli. *Am J Med* 1977; 62:355-360.

From 718 Medical Towers North, Louisville, Kentucky 40202. Contribution from Jewish Hospital, Louisville, Kentucky and The Heart Institute of Kentucky, Inc.

Teaching Medical Students Gynecologic History and Physical Examination

JOSEPH S. SANFILIPPO, M.D. and BYRON J. MASTERSON, M.D.

Since 1980 the University of Louisville Department of Obstetrics and Gynecology has used an alternative approach to the traditional method of teaching second-year medical students to take a gynecologic history and perform a pelvic exam. Trained Clinical Teaching Associates—women interested in improving gynecologic health care—are used to give students “hands on” experience. Not only does the student get direct feedback that will aid him or her in examining patients, but initial anxiety toward performing the pelvic examination is also allayed. The following describes the Clinical Teaching Associates Program.

Before the Clinical Teaching Associates Program, there was no one effective way to teach students the gynecologic history and examination and at the same time increase their sensitivity to and awareness of the psychological aspects associated with the pelvic exam.

Hospitalized patients provide little, if any, feedback during a pelvic exam and frequently have pelvic abnormalities that are confusing to students who have not yet learned to distinguish the normal from the abnormal. For this same reason, the OB-GYN clinic is less than ideal. Nor is the “Gynny Model” mannequin a practical method.¹ Films and other visual aids are good for instruction but do not provide the “hands on” experience the student needs to become more skilled and confident.

For the past few years, the Clinical Teaching Associates Program at the University of Louisville Department of Obstetrics and Gynecology has succeeded where other methods fail. Second-year students are given a more thorough introduction to the gynecologic history and pelvic exam by their contact with a well-trained,

gynecologically-normal woman who can help guide the student through his examination of her.

Methods

The establishment of the Clinical Teaching Associates Program required approval and financial backing from the University of Louisville School of Medicine. The cost in 1982 was \$6,500; an average of \$53.00 per student. Clinical Teaching Associates were paid \$18.00 an hour.

Finding interested women has not been difficult. In the beginning, the department advertised in school and local newspapers, but that proved to be a poor method of attracting suitable applicants. The most effective means of recruitment has been simply word-of-mouth between women who are intrigued by the opportunity to improve health care for their peers.

Each participant in the program is examined by a gynecologist to determine if her pelvic organs are normal. Those accepted undergo intensive training in the Gynecologic History and Pelvic Examination.

Students come into contact with the CTAs during their second year of education as part of the Physical Diagnosis course. First they are introduced to the subject in films shown during a two-hour orientation. The students are then divided into groups of four and assigned to two CTAs.

Before the actual session, each student is expected to be familiar with a syllabus which contains details of the history and exam. During the session with the CTAs, each student is given the chance to do the history and exam. An instructor first plays the role of patient to help the student acquire history-taking skills. The instructor then allows each student to perform a pelvic. The other students and instructor critique each examination.

Due to time constraints, the breast examination is not part of the CTA program. However, a separate pro-

Journal of the Kentucky Medical Association

gram is being considered which will provide a systematic approach to the evaluation of normal and abnormal breast tissue.

Conclusion

Today, most medical schools have programs which use Clinical Teaching Associates.^{2,3} That comes as no surprise since it is widely held that it is the most effective way to instruct medical students. This, in turn, results in a better third-year rotation in Obstetrics and Gynecology. The program also has the potential to aid residents in primary care specialties such as Family Practice, Internal Medicine and Obstetrics and Gynecology.

If feedback from students is any indication, the program is a success and should remain a part of the curriculum. "The best teaching program encountered during medical school training," is one comment frequently used by students to describe the program.

Acknowledgements

The authors wish to acknowledge the contribution of Walter M. Wolfe, Jr., M.D., in the establishment of the Clinical Teaching Associations Program, and also the contributions of Barbara J. Berman, P.A.C., and Nancy Gottlieb in coordinating the Clinical Teaching Associates program.

References 1. Schneidman B: An approach to obtaining patients to participate in pelvic examination. *J Med educ* 52:70-71, 1977. 2. Briggs R, Schneidman B, Thorson E, Deisher R: Education and integration of midlevel health-care practitioners in Obstetrics and Gynecology: experience of a training program in Washington State. *Am J Obstet Gynecol* 132:68, 1978. 3. Nelson L: Use of professional patients in teaching pelvic examinations. *Obstet Gynec* 52:630, 1978.

From the Department of Obstetrics and Gynecology, University of Louisville School of Medicine, Louisville, Kentucky 40202

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Roche salutes the history of Kentucky medicine

THE DOCTOR WHO PIONEERED ABDOMINAL SURGERY



Dr. Ephraim McDowell

In 1795, Dr. Ephraim McDowell of Virginia settled in the village of Danville, Kentucky. His practice took him on horseback over hundreds of miles of wilderness.

Nevertheless, his reputation as a skillful and successful surgeon spread—especially for lithotomies, which he performed 22 times without losing a patient.¹

First ovariectomy

McDowell's true moment in history came in 1809, when he performed the first known ovariectomy for removal of a tumor from Jane Crawford, then 47. The procedure was completed in 25 minutes, and Mrs. Crawford not only recovered but lived to age 78.^{1,2}

This landmark surgery was performed under the most primitive conditions—without anesthesia or anti-

sepsis—while, the story is told, brave Mrs. Crawford distracted herself as best she could by singing hymns.²

His published reports of this case, along with two others in 1817 and an additional two in 1819, established Dr. McDowell as the physician who saved women afflicted with ovarian disease from their previously hopeless situation and, further, marked the beginning of abdominal surgery.¹ To European medical practitioners, Dr. McDowell's accomplishments offered clear evidence that medicine was coming of age in America.³

References: 1. Garrison FH: *An Introduction to the History of Medicine*, 4th ed. Philadelphia, W. B. Saunders Company, 1929, pp 507-508. 2. Packard FR: *History of Medicine in the United States*, vol. II. New York, Hafner Publishing Company, 1963, pp 727-728. 3. Shaflet N: The evolution of American medical literature, in *History of American Medicine*, edited by Marti-Ibañez F, New York, MD Publications, 1959, p. 106



When the history reveals anxious depression...

For the estimated 70 percent of nonpsychotic depressed patients who are also anxious,¹ Limbitrol provides both amitriptyline, specific for symptoms of depression, and the effects of Librium® (chlordiazepoxide HCl), the tested and dependable anxiolytic. Limbitrol is, therefore, a better choice for these patients than dual agents that contain a phenothiazine, a class of antipsychotic drugs used infrequently in nonpsychotic patients.¹

62% of Overall Improvement...Within the First Week

Limbitrol also has a rapid onset of action which may lead to greater patient compliance. In a multicenter study, patients taking Limbitrol experienced 62% of their overall improvement within the first week of therapy.²

In another multicenter study,³ the following symptoms associated with anxious depression were significantly reduced during the first two weeks of therapy:

- ☐ Headache—79%
- ☐ Early insomnia—91%
- Middle insomnia—87%
- Late insomnia—89%
- ☐ Gastrointestinal upset—73%

In two multicenter studies, only 1.9% of Limbitrol patients experienced cardiovascular side effects.³

Patients should be cautioned about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness such as operating machinery or driving a car.

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jorvik ME; New York, Appleton-Century-Crofts, 1977, p. 316. 2. Feighner JP et al: *Psychopharmacology* 61:217-229, Mar 1979. 3. Data on file, Hoffmann-La Roche Inc., Nutley, NJ

In moderate depression and anxiety

Limbitrol®

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Please see summary of product information on following page.

which follows.

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50

General Leasing
Company of Kentucky

Professional Transportation Management

We administer your
physician's lease plan.

We lease all makes —
everywhere.

**GENERAL
LEASING**

121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383



SPECTRUM
EMERGENCY
CARE, INC.

EMERGENCY MEDICINE

part-time, full-time and locum tenens positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (12-60 hour shifts). For details write or call:

Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214
1-800-848-2938 / 614-457-9761

All inquiries will be kept in confidence.



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

Journal of the Kentucky Medical Association

EDITORIAL

I visited a friend today. He is a doctor and he is confined to a nursing home.

He has been there about six weeks. I have been by his door three times previously and did not go in. I was in a hurry. I had too much to do. Maybe he wouldn't want to see me, *etc.*

Today I did go in — although fearful and uncomfortable.

He looked awful. His face was puffy. His eyes were askew. He could barely move his arms. But when he spoke it was with the same intellectual brilliance and clarity of thought which had marked him before as a person and as a physician.

He understood my dis-ease. He spoke of how friends and colleagues stop coming because they cannot bear the agony of not being able to help. He spoke with compassion, not bitterness. And he told of how when he was practicing how anxious he was to get out of the nursing home after a visit. So he understood, but the comprehension may have made the reality of the situation even harder to bear. And then he told of his depression, the terrible helplessness of his situation,

the hopeless prognosis. He spoke of how the nights brought relief through sleep and how each day he awakened to the awful prospect of total dependency on others.

And finally he talked of how he welcomed death; how ready he is for the end.

The content of what he said was difficult to hear, but the manner in which he said it was inspirational. He was not complaining. He was even thankful that he had been given the time to practice medicine for 30 years and raise his children.

Finally at the end he thanked me for coming and said how much I had brightened his day.

How much suffering we all do in silence and how little we seem to be able to help each other.

My friend's plight has made me aware again of how little we really can do in medicine to reverse nature's course. But his courage and my own reluctance to let him voice that courage have made me realize again how obligated we are to our patients to give them the courtesy of listening and the dignity of a sympathy not smothered by our impotence to help.

Paul C. Grider, M.D.

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

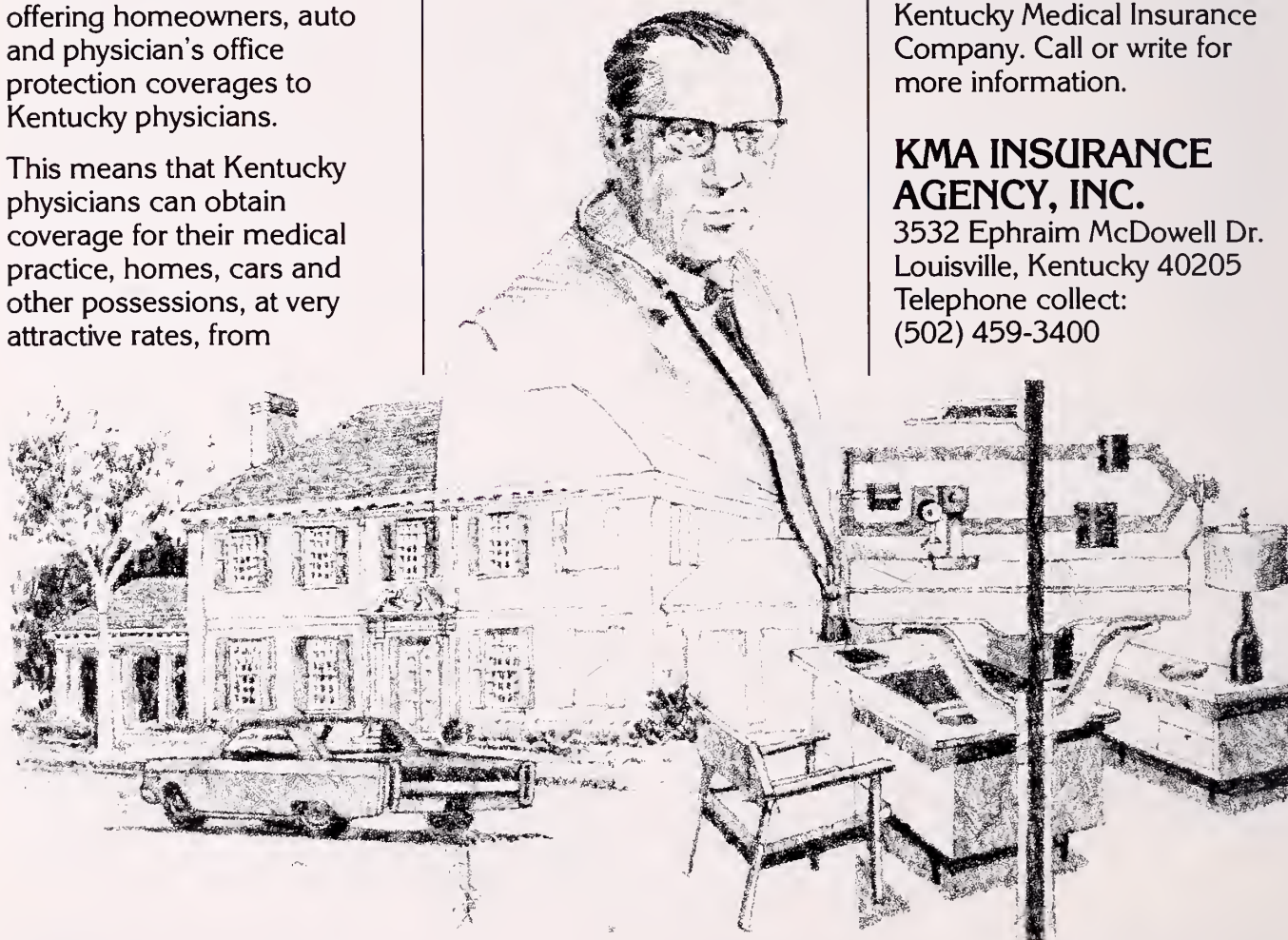
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532

Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

To The Editor:

I enjoyed reading Dr. Scott's fine article on some of the pitfalls involved in emergent endocrine surgery.¹ In the last case presented is a discussion of the problem of hypomagnesemia following parathyroidectomy. In this case report a total of 5.5 grams of magnesium were administered parenterally to replete the patient. Certainly the dramatic temporal response of the patient argued that the administered dose was sufficient to elevate the serum level of magnesium to a non-toxic range. The point I wish to emphasize is that even this seemingly large dose of magnesium may not be sufficient for many patients with severe symptomatic hypomagnesemia (generally a serum level < 1.0mg/L.)

Magnesium is predominantly found within cells and therefore serum levels at best only serve as an indirect reflection of the total body load. In fact magnesium deficiency states have been described in situations in which serum values were normal or even high.² In the current case the low serum level undoubtedly reflected a low serum level and as seen in most patients with hyperparathyroidism a low total body level as well.³ What is poorly appreciated even today is what total body deficit of magnesium a given serum level may reflect. Prior studies, many by Flink, have shown that in "deficiency" states the total body deficit is at least 1mg/kg and as high as 2.0mg/kg.⁴ For the average 70kg. man this would imply a total body deficit of 70 to 140mg.

Two other points are of importance. Even in deficiency states the capacity of the kidney to resorb filtered magnesium may be impaired so that on average only 50% of an administered dose of magnesium is retained. The second point is that prior studies have shown an enormous capacity for the healthy kidney to excrete excess magnesium, up to 40 - 60gms. in a 24 hour period.⁵

In practical terms this translates to the following. We can seriously underestimate magnesium deficits and often

a seemingly massive dose may need to be administered. Fortunately the healthy kidney provides a considerable margin of error, even if our replacement is somewhat excessive. To quantify this the average 70 kg. man with a low serum level of magnesium has a calculated deficit of 70 - 140mg. It will take roughly twice this amount to replete the deficit because of renal losses. Since each gram of magnesium sulfate contains a little over 8mg, this translates into replacement doses in the range of 15 - 30 grams. As pointed out by Flink in his article a number of replacement schedules have been advocated.

Since magnesium levels are readily available now much of the guess work is gone and one should not assume that a given dosage will replete the deficit nor avoid toxicity. Serum levels should be checked, especially if the patient's renal function is compromised or if the patient remains symptomatic after the initial repletion period.

Magnesium deficiency represents yet another example of applied physiology and as Dr. Scott's article points out what was a totally unknown problem some 25 years ago is a very real problem today. And with appropriate attention to detail the problem can be readily corrected.

Ralph D. Caldrony, M.D.

Department of Medicine

Albert B. Chandler Medical Center

Lexington, KY.

References 1. Scott HW: Emergencies in Endocrine Surgery *J Ky Med Assoc* 81:825, November, 1983. 2. Massry SG, Sedig MS: Hypomagnesemia and Hypermagnesemia. *Clinical Nephrology* 7:147, July, 1977. 3. Wacker WEC, Parisi AF: Magnesium Metabolism. *NEJM* 278:658, March, 1968. 4. Flink EB: Therapy of Magnesium Deficiency, *Ann NY Acad Sci*, 162:901, August, 1969. 5. Chernow B, Smith J, Rainey TG, Finton G: Hypomagnesemia: Implications for the Critical Care Specialist. *Crit Care Med*, 10:193, March, 1982.

NEED A SPEAKER? . . .

for your next hospital staff, county society or other meeting?

Contact the KMA Committee on Impaired Physicians.

(502) 459-9790

BRIEF SUMMARY PROCARDIA® CAPSULES (nifedipine)

For Oral Use

INDICATIONS AND USAGE: I. **Vasospastic Angina:** PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. **Chronic Stable Angina (Classical Effort-Associated Angina):** PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: Excessive Hypotension: Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients, usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug Interactions: Beta-adrenergic blocking agents: (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates: PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antiangebral effectiveness of this combination.

Digitalis: Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility: When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy: Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antiangebral medication. Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request

© 1982, Pfizer Inc.

Pfizer LABORATORIES DIVISION
PFIZER INC.

Journal of the Kentucky Medical Association

"I can do things that I couldn't do for 3 yrs. including joining the human race again."



Quotes from an unsolicited letter received by Pfizer from an angina patient. While this patient's experience is representative of many unsolicited comments received, not all patients will respond to Procordia nor will they all respond to the same degree.

"My daily routine consisted of sitting in my chair trying to stay alive."

"My doctor switched me to PROCARDIA[] as soon as it became available. The change in my condition is remarkable."*

"I shop, cook and can plant flowers again."

"I have been able to do volunteer work...and feel needed and useful once again."

PROCARDIA can mean the return to a more normal life for your patients—having fewer anginal attacks,¹ taking fewer nitroglycerin tablets,² doing more, and being more productive once again.

Side effects are usually mild (most frequently reported are dizziness or lightheadedness, peripheral edema, nausea, weakness, headache and flushing, each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%).



for the varied faces of angina

PROCARDIA[®]

(NIFEDIPINE) Capsules 10 mg

*Procordia is indicated for the management of:

- 1) Confirmed vasospastic angina.
- 2) Angina where the clinical presentation suggests a possible vasospastic component.
- 3) Chronic stable angina without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or nitrates or who cannot tolerate these agents. In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks' duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Please see PROCARDIA brief summary on adjoining page.

ZORprin[®]

(ASPIRIN) ZERO ORDER
RELEASE

Arthritis Therapy That Checks Out.



Gastric distress is reduced. pH-dependent matrix virtually doesn't release in acidic stomach.



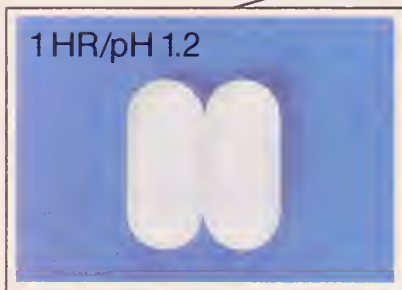
ZORprin[®] (aspirin) is released in the alkaline environment of the small intestine.



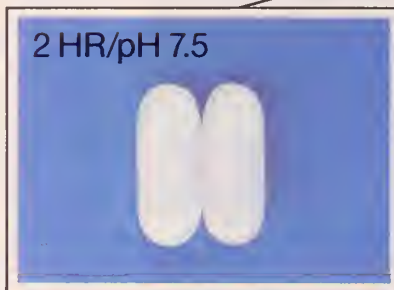
Zero-order release delivers drug at a constant rate, reducing serum peaks and valleys.



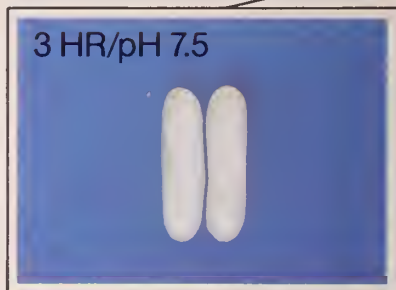
1 HR/pH 1.2



2 HR/pH 7.5



3 HR/pH 7.5



Convenient b.i.d. dosage...enhances patient compliance.



Economical...comparable efficacy and safety as other NSAIDs, yet costs approximately one-half as much.



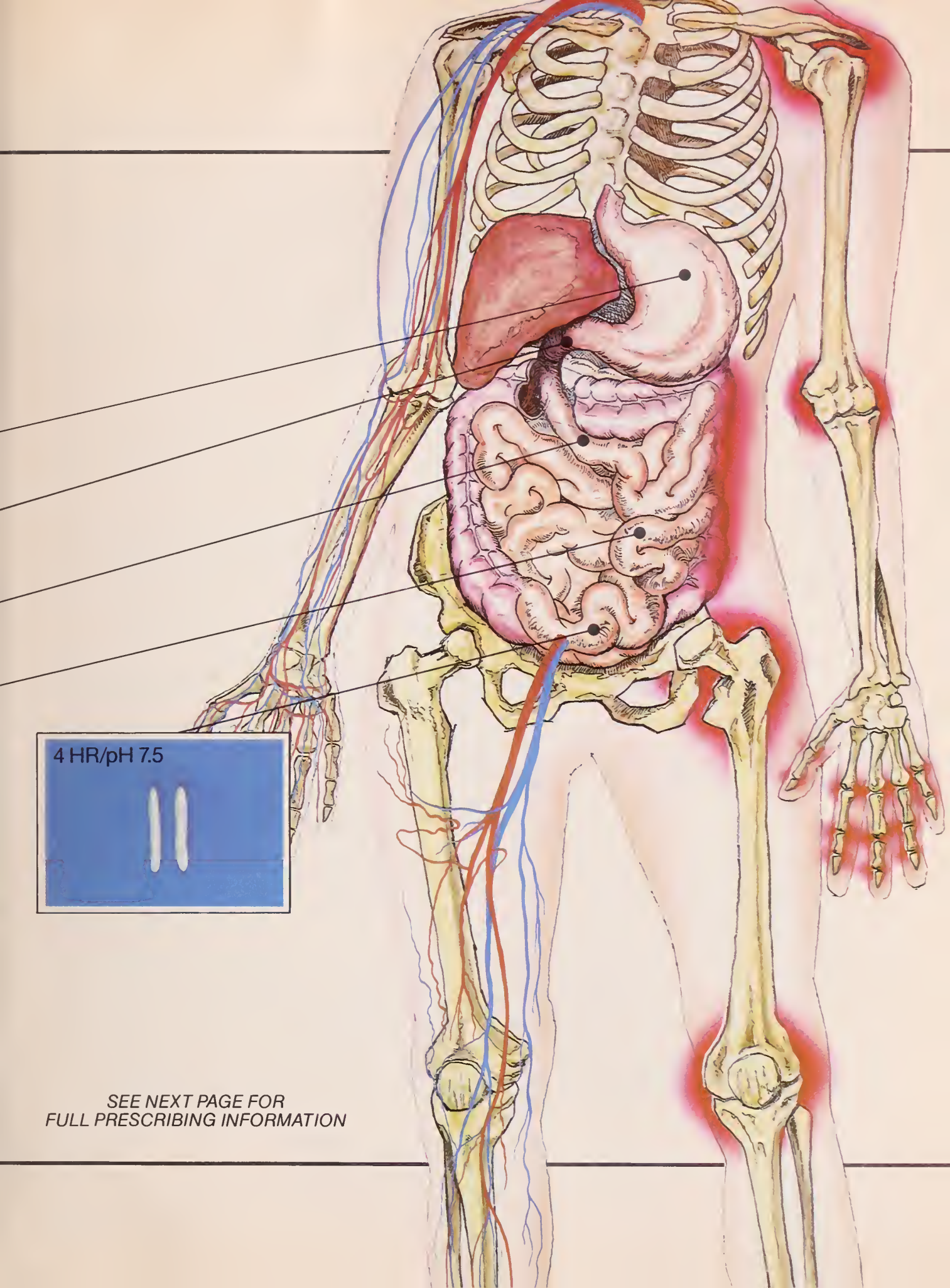
Your first step in arthritis therapy... **ZORprin[®]** (ASPIRIN) Zero-Order Release.

Pioneers in medicine for the family



Boots Pharmaceuticals, Inc.
6540 LINE AVENUE, P.O. BOX 6750
SHREVEPORT, LOUISIANA 71106-9989

© Boots Pharmaceuticals, Inc., 1983

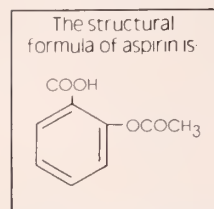


4 HR/pH 7.5

SEE NEXT PAGE FOR
FULL PRESCRIBING INFORMATION

ZORprin (ASPIRIN) Zero-Order Release

DESCRIPTION: Each capsule-shaped tablet of Zorprin contains 800 mg of aspirin, formulated in a special matrix to control the release of aspirin after ingestion. The controlled availability of aspirin provided by Zorprin approximates zero-order release, the *in vitro* release of aspirin from the tablet matrix is linear and independent of the concentration of the drug. **CLINICAL PHARMACOLOGY:** Aspirin, as contained in Zorprin, is a salicylate that has demonstrated anti-inflammatory and analgesic activity. Its mode of action as an anti-inflammatory and analgesic agent may be due to the inhibition of synthesis of prostaglandins, although its exact mode of action is not known. Zorprin dissolution is pH-dependent. *In vitro* studies have shown very little aspirin to be released in acidic solutions, whereas, Zorprin releases the majority of its aspirin (90%) in a zero-order mode at a neutral to alkaline pH. It is this pH dependence of Zorprin that reduces direct contact between aspirin and the gastric mucosa, resulting in a reduction of its gastrointestinal side-effect potential. Bioavailability data for Zorprin have confirmed that plasma levels of salicylic acid, and acetylsalicylic acid can be measured 24 hours after a single oral dose. This substantiates a twice daily dose regimen. Multiple dose bioavailability studies showed similar steady-state salicylate levels for Zorprin as for conventional release aspirin using the same total daily dose. Long-term monitoring of salicylate levels showed no signs of accumulation once steady-state levels were reached (4-6 days). Studies of *in vivo* prostaglandin levels (PGE₂) have shown Zorprin plasma levels of salicylic acid and acetylsalicylic acid to reduce PGE₂ levels 14 hours after a single oral 800 mg dose while an equivalent dose of aspirin produced a reduction of PGE₂ levels only through six hours. Zorprin's effect on prostaglandins other than PGE₂ has not been determined. Salicylates are excreted mainly by the kidney, and from studies in humans it appears that salicylate is excreted in the urine as free salicylic acid (10%); salicyluric acid (75%); salicylic phenolic (10%); acyl glucuronides (5%) and gentisic acid (<1%).



not been established in those rheumatoid arthritic patients who are designated by the American Rheumatism Association as Functional Class IV (incapacitated, largely or wholly bedridden, or confined to wheelchair, little or no self-care). In patients treated with Zorprin for rheumatoid arthritis and osteoarthritis, the anti-inflammatory action of Zorprin has been shown by reduction in pain, morning stiffness and disease activity as assessed by both the investigators and patients. In clinical studies in patients with rheumatoid arthritis and osteoarthritis, Zorprin has been shown to be comparable to conventional release aspirin in controlling the aforementioned signs and symptoms of disease activity and to be associated with a statistically significant reduction in the milder gastrointestinal side effects (see ADVERSE REACTIONS). Zorprin may be well tolerated in some patients who have had gastrointestinal side effects with conventional release aspirin, but these patients when treated with Zorprin should be carefully followed for signs and symptoms of gastrointestinal bleeding and ulceration. Since there have been no controlled trials to demonstrate whether or not there is any beneficial effect or harmful interaction with the use of Zorprin in conjunction with other nonsteroidal anti-inflammatory agents (NSAIs), the combination cannot be recommended (see Drug Interactions). Because of its relatively long onset of action, Zorprin is not recommended for antipyresis or for short-term analgesia. **CONTRAINDICATIONS:** Zorprin should not be used in patients known to be hypersensitive to salicylates or in individuals with the syndrome of nasal polyps, angioedema, bronchospastic reactivity to aspirin, renal or hepatic insufficiency, hypoprothrombinemia or other bleeding disorders. Zorprin is not recommended for children under 12 years of age, it is contraindicated in all children with fever accompanied by dehydration. **WARNINGS:** Zorprin should be used with caution when anticoagulants are prescribed concurrently, since aspirin may depress platelet aggregation and increase bleeding time. Large doses of salicylates may have hypoglycemic action and enhance the effect of the oral hypoglycemics, concomitant use therefore is not recommended. However, if such use is necessary, dosage of the hypoglycemic agent must be reduced. The hypoglycemic action of the salicylates may also necessitate adjustment of the insulin requirements of diabetics. While salicylates in large doses have a uricosuric effect, smaller amounts may reduce water excretion and increase serum uric acid. **USE IN PREGNANCY:** Aspirin can harm the fetus when administered to pregnant women. Aspirin interferes with maternal and infant hemostasis and may lengthen the duration of pregnancy and parturition. Aspirin has produced teratogenic effects and increases the incidence of stillbirths and neonatal deaths in animals. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Aspirin should not be taken during the last 3 months of pregnancy. **PRECAUTIONS:** Appropriate precautions should be taken in prescribing Zorprin for patients who are known to be sensitive to aspirin or salicylates. Particular care should be used when prescribing this medication for patients with erosive gastritis, peptic ulcer, mild diabetes or gout. As with all salicylate drugs, caution should be exercised in prescribing Zorprin for those patients with bleeding tendencies or those on anticoagulants. In order to avoid exacerbation of disease or adrenal insufficiency, patients who have been on prolonged corticosteroid therapy should have their therapy tapered slowly rather than discontinued abruptly when Zorprin is made a part of the treatment program. Patients receiving large doses of aspirin and/or prolonged therapy may develop mild salicylate intoxication (salicylism) that may be reversed by dosage reduction. Salicylates can produce changes in thyroid function tests. Salicylates should be used with caution in patients with severe hepatic damage, preexisting hypoprothrombinemia, Vitamin K deficiency and in those undergoing surgery. Since aspirin release from Zorprin is pH dependent, it may change in those conditions where the gastric pH has been increased as a result of antacids, gastric secretion inhibitors or surgical procedures. **Drug Interactions:** (See **WARNINGS**) Aspirin may interfere with some anticoagulant and antidiabetic drugs. Drugs which lower serum uric acid by increasing uric acid excretion (uricosurics) may be antagonized by the concomitant use of aspirin, particularly in doses less than 2.0 grams/day. Nonsteroidal anti-inflammatory drugs may be competitively displaced from their albumin binding sites by aspirin. This effect may negate the clinical efficacy of both drugs. Also, the gastrointestinal inflammatory potential of nonsteroidal anti-inflammatory drugs may be potentiated by aspirin. The combination of alcohol and aspirin may increase the risk of gastrointestinal bleeding. Aspirin may enhance the activity of methotrexate and increase its toxicity. Sodium excretion produced by spironolactone may be decreased in the presence of salicylates. Concomitant administration of other anti-inflammatory drugs may increase the risk of gastrointestinal ulceration. Urinary alkalinizers decrease aspirin's effectiveness by increasing the rate of salicylate renal excretion. Phenobarbital decreases aspirin's effectiveness by enzyme induction. **Pregnancy Category D.** See **WARNINGS** Section. **Nursing Mothers:** Salicylates have been detected in the breast milk of nursing mothers. Because of the potential for serious adverse reactions from aspirin in nursing infants, a decision should be made whether to discontinue nursing or discontinue the drug, taking into account the benefit of the drug to the mother. **ADVERSE REACTIONS: Hematologic:** Aspirin interferes with hemostasis. Patients with a history of blood coagulation defects or receiving anti-coagulant drugs or with severe anemia should avoid Zorprin. Aspirin used chronically may cause a persistent iron deficiency anemia. **Gastrointestinal:** Aspirin may potentiate peptic ulcer, and cause stomach distress or heartburn. Aspirin can cause an increase in occult bleeding and in some patients massive gastrointestinal bleeding. However, the greatest release of active drug from Zorprin is designed to occur in the small intestine over a period of time. This has resulted in fewer symptomatic gastrointestinal side effects. **Allergic:** Allergic and anaphylactic reactions have been noted when hypersensitive individuals have taken aspirin. Fatal anaphylactic shock, while not common, has been reported. **Respiratory:** Aspirin intolerance, manifested by exacerbations of bronchospasm and rhinitis, may occur in patients with a history of nasal polyps, asthma, or rhinitis. The mechanism of this intolerance is unknown but may be the result of aspirin-induced shunting of prostaglandin synthesis to the lipoxygenase pathway and the liberation of leukotrienes, e.g. slow-reacting substance of anaphylaxis. **Dermatologic:** Hives, rashes, and angioedema may occur, especially in patients suffering from chronic urticaria. **Central Nervous System:** Taken in overdoses, aspirin provides stimulation which may be manifested by tinnitus. Following initial stimulation, depression of the central nervous system may be noted. **Renal:** Aspirin rarely may aggravate chronic kidney disease. **Hepatic:** High doses of aspirin have been reported to produce reversible hepatic dysfunction. **OVERDOSAGE:** Overdosage, if it occurs, would produce the usual symptoms of salicylism: tinnitus, vertigo, headache, confusion, drowsiness, sweating, hyperventilation, vomiting or diarrhea. Plasma salicylate levels in adults may range from 50 to 80 mg/dl in the mildly intoxicated patient to 110 to 160 mg/dl in the severely intoxicated patient. An arterial blood pH of 7.1 may indicate serious poisoning. The clearance of salicylates in children is much slower than adults and should receive due consideration when aspirin overdoses occur in infants, salicylate half-lives of 30 hours have been reported in infants 4-8 months old. Treatment for mild intoxication should include emptying the stomach with an emetic, or gastric lavage with 5% sodium bicarbonate. Individuals suffering from severe intoxication should, in addition, have forced diuresis by intravenous infusions of sodium bicarbonate and dextrose or sodium lactate. In extreme cases, hemodialysis or peritoneal dialysis may be required. (*A plasma salicylate level of 160 mg/dl in an adult is usually considered lethal.) **DOSAGE & ADMINISTRATION:** In order to achieve a zero-order release, the tablets of Zorprin should be swallowed intact. Breaking the tablets or disrupting the structure will alter the release profile of the drug. It is recommended that Zorprin be taken with sufficient quantities of fluids (8 oz. or more). **Adult Dosage:** For mild to moderate pain associated with rheumatoid arthritis and osteoarthritis, the recommended initial dose of Zorprin is 1600 mg (2-800 mg tablets) twice a day. Because of Zorprin's prolonged release of aspirin into the bloodstream, Zorprin tablets may be taken as a b.i.d. dose. Further adjustment of the dosage should be determined by the physician, based upon the patient's response and needs. Since it will take 4-6 days to reach steady-state levels of salicylic acid with Zorprin, it is recommended dosages be given for at least one week before further adjustment. In general, patients with rheumatoid arthritis seem to require higher doses of Zorprin than do patients with osteoarthritis. **Zorprin is not recommended for children below the age of 12.** **HOW SUPPLIED:** Zorprin Tablets 800 mg; plain, white capsule-shaped tablets. Bottles of 100 Tablets—NDC 0524-0057-01. **Caution:** Federal law prohibits dispensing without prescription. U.S. Patent No. 4,308,251. **Manufactured and Distributed by: BOOTS PHARMACEUTICALS, INC., Shreveport, Louisiana 71106 U.S.A.**

12/8/83 0057-04

Pioneers in medicine for the family



Boots Pharmaceuticals, Inc.
6540 LINE AVENUE P.O. BOX 6750
SHREVEPORT, LOUISIANA 71106-9889

Book Reviews

Handbook of Obstetrics & Gynecology **Ralph C. Benson**

Lange Medical Publications, 1983, 804 pages

This is the singular effort of Dr. Benson, a distinct difference from other Lange series with multiauthorship. It is morphologically a handbook, easily palmed or pocketed and handy indeed for quick draw reference and rescue.

Extensive revision of this edition modernizes what three years ago seemed to be quite current. Such is the pace of medical progress and for the paperback discount, we can remodel our OBGYN construct.

Ultrasonography is so integral to current practice that this subject should have been granted its own chapter with illustrations, instead of its piecemeal presentation. Such obstetrical complications as pre- and eclampsia, high risk pregnancy, dystocia, *etc.* are, in contrast, granted a deserved place.

Medical emergencies - disseminated intravascular coagulation, toxemia, and infection are concisely discussed with handy measures outlined. Remarkably there are several new subjects. Embryology, toxic shock syndrome, hirsutism and premenstrual tension are timely and help us keep up with the "white press" (newspaper, T.V., magazines).

Good indexing is essential to the handiness of the book and such is accomplished but in myopic print. Both inside covers are utilized, one with lab values and the other with an obstetric calendar.

Controversies of abortion, sterilization, ethics and second opinions are avoided, for space in this book is not wasted. Really a book for students at all levels, this handbook will be well received.

Current Emergency Diagnosis & Treatment

John Mills, Mary T. Ho and Donald D. Trunkey

1983 Lange Medical Publications, 738 pages

This is the inaugural edition and takes its place in the family of Lange series books. Emerging as a specialty in its own right, Emergency Medicine is maturing both in its breadth and its intensity.

Since patients take carte blanche with the ER, bringing acute life threatening illness and injury together with chronic problems, this book needs to be comprehensive. All specialities are represented, with authors giving synopses of what might be considered emergency as well as ambulatory in their practice. Here lies its achilles heel. In many sections diseases are presented which are both rare and unlikely to be seen in an emergent situation — ankylosing spondylitis, pemphigus vulgaris, *etc.*

By design assessment for treatment purposes rather than for extensive workups is emphasized. Obviously

emergency rooms are not a milieu for such evaluation and to a fault if such are done.

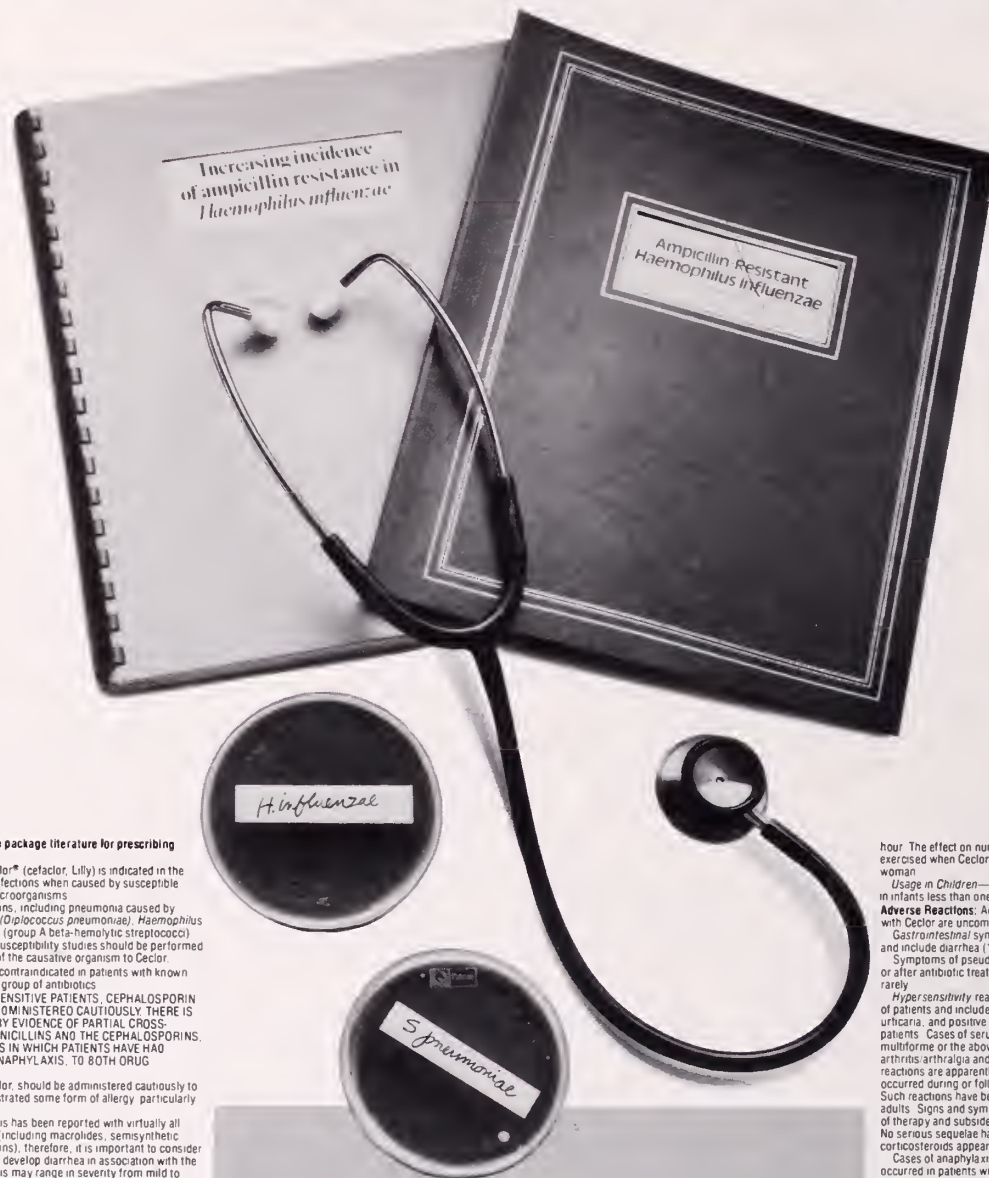
Several features are unique to this book. Each chapter has a captioned summary of its contents, a very useful and expeditious way to present material. Many tables are interspersed, summarizing important critical data. Procedures are illustrated, walked through step by step, and are of obvious importance.

Tables with common emergency drugs, antidotes and conversion tables are also included.

Such a manual is really a nice addition to the clinicians workbench.

Stephen Z. Smith, M.D.
Assistant Scientific Editor

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage. Cefclor® (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococcus).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication. Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: General Precautions.—If an allergic reaction to Cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strips, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B.—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Cefclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers.—Small amounts of Cefclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

hour. The effect on nursing infants is not known. Caution should be exercised when Cefclor® (cefclor, Lilly) is administered to a nursing woman.

Usage in Children.—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Cefclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2-5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1-5 percent of patients and include morbilliform eruptions (1 in 100), Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthritis and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Cefclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome. Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain.—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic.—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic.—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal.—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.¹

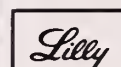
Note: Cefclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8: 91, 1975.
2. Antimicrob. Agents Chemother., 11: 470, 1977.
3. Antimicrob. Agents Chemother., 13: 584, 1978.
4. Antimicrob. Agents Chemother., 12: 490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), 11: 880, Washington, D.C., American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., 13: 861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

© 1982, ELI LILLY AND COMPANY

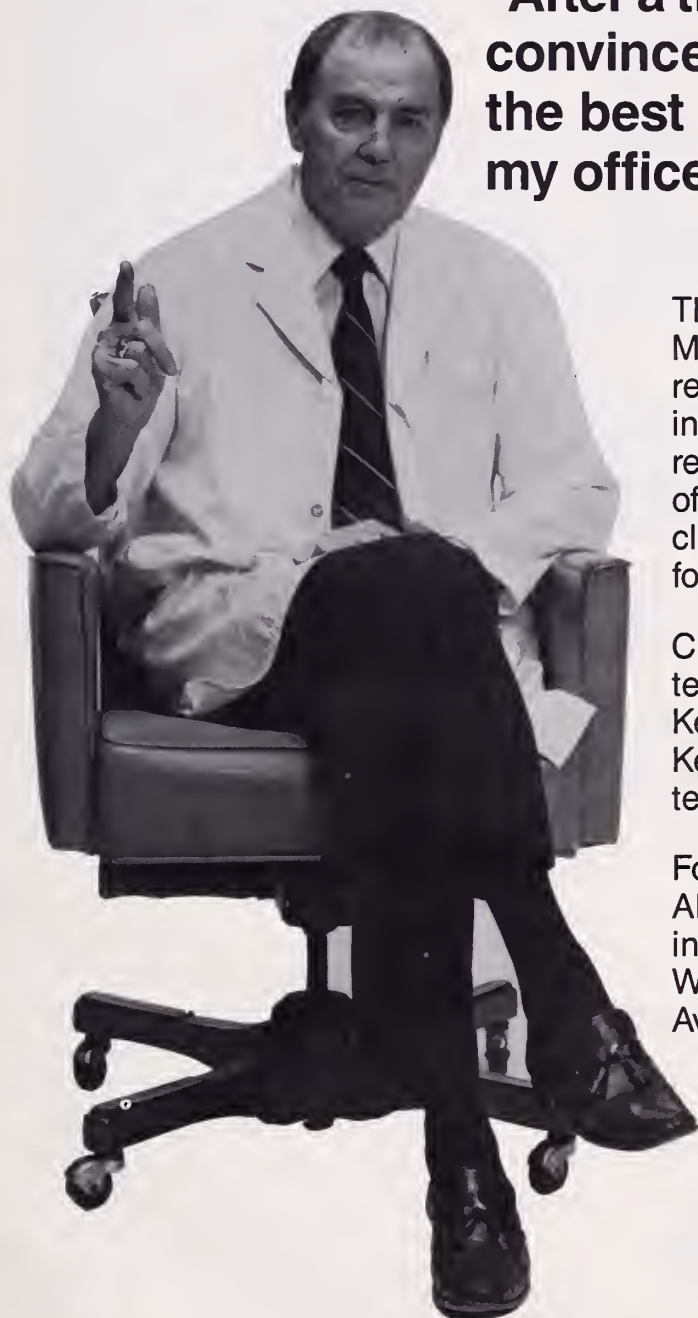


Additional information available to the profession on request from
Eli Lilly and Company
Indianapolis, Indiana 46285
Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

300035

“Now that I can get Clinic-Manager™ software on the IBM PC-XT for \$13,950 or \$16,950 including installation and training, I’m ready to buy a computer system.”

“After a thorough investigation, I’m convinced that Clinic-Manager™ is the best software for managing all my office functions.”



The office functions included in the Clinic-Manager™ software system are: accounts receivable, collections, appointment scheduling, checkout routine, statistics and medical records as well as the automated preparation of patient statements, insurance (forms including electronic transfer) and encounter forms (super bills).

Clinic-Manager™ is authored by EDP Systems, Inc., and distributed exclusively in Kentucky by Clinic Manager Systems, a Kentucky Corporation with a staff of 12 technical and marketing professionals.

For more information call Douglas Weidner, Al Earley or Jim Augustus at 502/426-5870 in Louisville. Or write us at 703 Cadogan Way, Louisville, KY 40222 or 1100 Walnut Ave., Owensboro, KY 42301.

CMS

CLINIC MANAGER SYSTEMS

A special practice for specialists

If you're a surgeon or OB/GYN or other medical specialist, the Air Force may have a special practice for you.

What makes it special? You'll enjoy an excellent pay and benefits package. Your regular working hours will allow you to spend more time with your family. You'll receive 30 days of vacation with pay each year. And you will work with modern equipment and some of the most highly trained professionals in the world, serving your country and your patients. Now that's special!

**Find out just how special
your practice can be.**

Contact:

TSGT PETE HONAKER
701 W. Muhammed Ali Blvd.
Louisville, KY 40203
Call 502-582-5727 Collect



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

**Endorsed by the
Kentucky Medical Association**



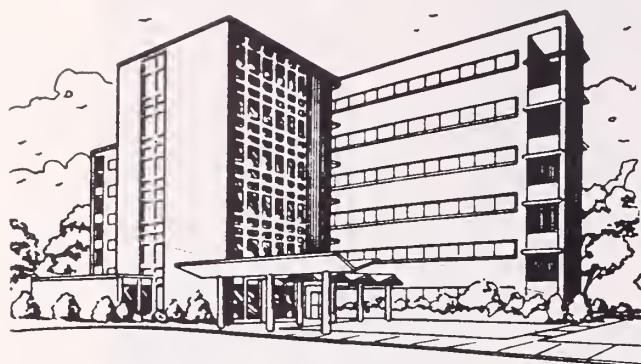
AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

Twenty-Ninth Annual Clinical Conference

April 6 & 7, 1984



**1221 S. Broadway
Lexington, Kentucky 40504**

Presented by:

The Lexington Clinic and
The Lexington Clinic Foundation

Program

Friday Morning, April 6

- 8:30 Registration, Coffee and Doughnuts
- 9:00 Welcome—Moderator, Lawrence Maguire, MD
- 9:05 Diagnosis and Therapy of TIA's; Including Amaurosis Fugax, Transient Global Amnesia, and Drop Attacks. Clark Millikan, MD
- 9:50 Progressing Stroke. Daniel Tynan, MD
- 10:15 Break, with Refreshments
- 10:45 Imaging Modalities in Stroke. Guy T. Ellis, MD
- 11:10 Diagnosis and Prognosis of the Completed Stroke—Prevention of the Next Stroke. Clark Millikan, MD
- 11:55 Rehabilitating the Patient with a Completed Stroke. Virginia Garrett, MD
- 12:30 Lunch

Friday Afternoon, April 6

Moderator—Ardis Hoven, M.D.

- 2:00 Advances in the Management of Lumbar Disc Disease—Chemonucleolysis. Leon Ravvin, MD
- 2:25 CT Scanning for the Generalist. Kenneth W. Peat, MD
- 2:50 Impotence—Diagnosis and Management. William Gee, MD
- 3:15 Break, with Refreshments
- 3:30 Managing the Arthritic Patient. Paul M. Goldfarb, MD
- 3:55 Practical Problems in Pediatric Urology. Anthony Casale, MD
- 4:20 Questions and Answers
- 4:30 Adjourn

Friday Evening, April 6

Social Activity—Cocktails and Hors d'oeuvres at Lexington Clinic East

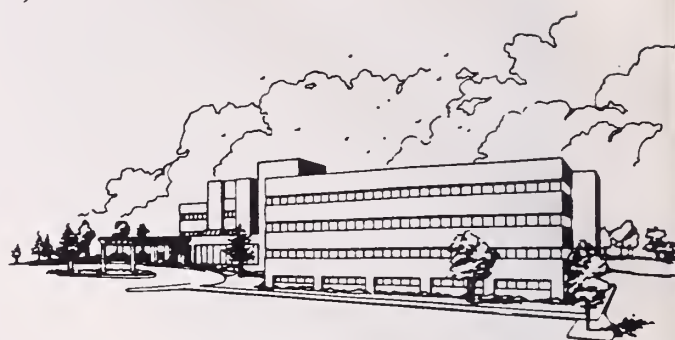
- 6:00 Board Trolleys for Trip to Lexington Clinic East
- 8:00 Board Trolleys for Return Trip to Radisson Plaza Hotel

Saturday Morning, April 7

9:00–11:30

Concurrent Seminar Sessions

1. Improving Patient Care through Effective Practice Management. Administrative Staff.
2. Evaluation and Conditioning Programs for Recreational and Competitive Athletes. W. Ben Kibler, MD, Don Lange, RPT, Mark Dodson, LPT, Lexington Clinic. Al Greene, Head Trainer, and Walt McCombs, Basketball Trainer, University of Kentucky Athletics Department.



**Primary Care Center
100 N. Eagle Creek Drive
Lexington, Kentucky 40509**

3. Diagnosis and Management of Diabetes Mellitus. Thomas J. Goodenow, MD, L. Raymond Reynolds, MD, Mary Gaskins, RD, and Wilma Stagner, RN, Endocrinology Section.

Saturday Afternoon, April 7

Social Activity—Optional.

Keeneland Trip, with lunch, reserved seating, and transportation provided.

12:00 Board Buses for Keeneland.

4:00–5:00 Board Buses for return trip to Radisson Plaza Hotel.

All Scientific Sessions held at Radisson Plaza Hotel, Lexington. Cocktail Party Friday Evening, April 6, at Lexington Clinic East. Optional Trip to Keeneland, with reserved seating, Saturday afternoon, April 7.

Guest Speakers:

Clark Millikan, MD
Professor of Neurology
University of Utah School of Medicine
Salt Lake City, Utah

Virginia Garrett, MD
Director of Brain Injury Unit
Cardinal Hill Hospital
Lexington, KY

As an organization accredited for continuing medical education, the Lexington Clinic certifies that this continuing medical education activity meets the criteria for 8 credit hours in Category I toward the Physician's Recognition Award of the American Medical Association or similar credit.

This conference has been approved 8 hours of prescribed credit by the American Academy of Family Physicians.

Conference Registration fee: \$50.00
Optional Keeneland Trip \$20.00 per person.

Please send inquiries to: Suzanne Compton, MS, Coordinator, Education and Research, The Lexington Clinic, 1221 S. Broadway, Lexington, Kentucky 40504

ASSOCIATION

NEWS

The KMA Boards of Trustees met in regular session on December 13-14, 1983. The following highlights of actions taken by the Board may be of interest.

- Voted to accept a leadership role in the Prescription Drug Abuse Data Synthesis (PADS) project sponsored nationally by the AMA which will assist in monitoring the misprescribing of controlled substances.
- Capitalization of the Kentucky Medical Management and Computer Operations Company, previously authorized by the 1983 KMA House of Delegates. The company will provide practice management consulting and computer services to assist the physicians in the daily operation of their office practice.

In other reports Royce E. Dawson, M.D., Secretary of the State Board of Medical Licensure reviewed a recently adopted regulation designed to prohibit utilization of Schedule II amphetamines and amphetamine-like substances for the treatment of obesity. The Licensure Board has also developed a questionnaire designed to evaluate the quality of education of foreign medical schools. Foreign medical schools must now complete an evaluation form before graduates will be accepted for licensure.

In a report on AMA actions, David B. Stevens, M.D., AMA Senior Delegate noted the recently adopted AMA position on the Joint Commission on Accreditation of Hospitals (JCAH). The AMA adopted the following statement concerning the medical staff chapter of the accreditation manual for hospitals.

"Resolved, that it be the policy of the AMA that the hospital admitting privilege be granted in accordance with state law and in accordance with the criteria for standards of medical care established by the individual hospital medical staff." Doctor Stevens was recognized by the Board for 18 years of service to Kentucky's AMA Delegation. He retired from the Delegation this year.

Robert C. Burkhart, M.D., President of the Kentucky Peer Review Organization, reported that the KPRO Board had been asked to reconsider its decision to institute pre-admission review. According to Doctor Burkhart the Board came to the conclusion that it would not alter the program at the present time. As of December 13, the program had received 38,298 calls. 1,727 (4.5%) were referred to a physician advisor. Ten of the referrals received adverse determinations. KPRO estimated a savings of \$128,160 since the beginning of the program. Telephone lines are now open on Saturdays from 10 a.m. to 2 p.m. EST.



Other Matters

The Kentucky General Assembly convened on January 3, 1984. The 60 day legislative session is expected to review over 1300 legislative proposals. Approximately 10% will be medical or health related. Physicians are urged to contact their elected Representatives and Senators on issues of concern. The following toll free numbers in Frankfort are available. Status of Particular Legislation, 1-800-372-2993. To reach your Legislator, 1-800-372-2985.

Persons at high risk of contracting hepatitis B should be vaccinated, the American College of Physicians (ACP) announced in a statement published in the *January Annals of Internal Medicine*. Hepatitis B is a serious disease infecting more than 200,000 Americans annually. Those at greatest risk of infection include homosexually active males; users of injectable, illicit drugs; institutionalized mentally retarded persons; and health workers. The latter are at particular risk due to their high degree of exposure to blood and blood products and to hepatitis B patients. A safe, highly effective, licensed vaccine consisting of inactivated human hepatitis B surface antigen (HBsAg) particles is available for the prevention of hepatitis B disease.

KMA Board of Trustees

Digest of Proceedings

The KMA Board of Trustees met in regular session at the KMA Headquarters Building on December 13-14, 1983. President Holloway related events that had occurred in meetings he had attended since becoming President.

S. Randolph Scheen, M.D., Secretary-Treasurer, gave a brief synopsis of headquarters activity since the last Board meeting. He reported that excluding special members and students, KMA has 4,059 members. Routine reports were also given by representatives of the Kentucky State Board of Medical Licensure; the Kentucky Peer Review Organization; the KMA Insurance Agency; and the Kentucky Medical Insurance Company.

Following a report by the Commissioner of the Bureau for Health Services, the Board referred consideration of a proposed Center for Health Research and Center for Health Promotion to the Committee on Health Planning and Committee on Community and Rural Health, respectively.

The Board members then heard a report by Mary Veurink, President of the Auxiliary, on recent activities of the Auxiliary.

The Board concurred with action taken by the Board of KMA Physicians Services, Inc. (holding company) to capitalize Kentucky Medical Management and Computer Operations, authorized by the 1983 KMA House of Delegates. The Board also endorsed KMA's active

participation in the Prescription Abuse Data Synthesis (PADS) Program, to the extent of committing staff involvement for up to four months. The goal of the PADS Program is to identify the sources of diversion of prescription drugs.

The Board endorsed the candidacy of Fred C. Rainey, M.D., Elizabethtown, for AMA Trustee; and voted to submit the name of David B. Stevens, M.D., Lexington, to the AMA for appointment to the Council on Long-Range Planning. President Holloway presented a plaque to Doctor Stevens in appreciation for his 18 years of service as a member of the Kentucky Delegation to the AMA, as Doctor Stevens had declined to seek reelection.

The Board also presented Laman A. Gray, Sr., M.D. with a plaque to commemorate his 20 years as Chairman of the McDowell House Board of Managers from which he resigned in 1983.

Chairman Barton appointed a subcommittee to study a response to a health report submitted by a University of Kentucky affiliated Health Care Access Committee. The Board approved an increase in members' Blue Cross and Blue Shield low option coverage; and selected nominees to the Kentucky Health Facilities and Health Services Certificate of Need and Licensure Board and the Medical Laboratory Advisory Committee.

The next meeting of the Board was set for April 11-12, 1984.



David B. Stevens, M.D., was presented a plaque by the KMA Board of Trustees for his 18 years as AMA Delegate. Doctor Stevens retired from the Delegation this year.



Laman A. Gray, Sr., M.D., (left) was honored for his 30 years as a member of the McDowell House Board of Managers, serving 20 years as Chairman. Donald C. Barton, M.D., KMA Board Chairman, presented the plaque.

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

Upjohn

Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

WARNING

Thiazides are not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy determined by the individual. If this combination represents the best management, its use may be more convenient in patient management. Treatment of hypertension and edema is not static but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak lolic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

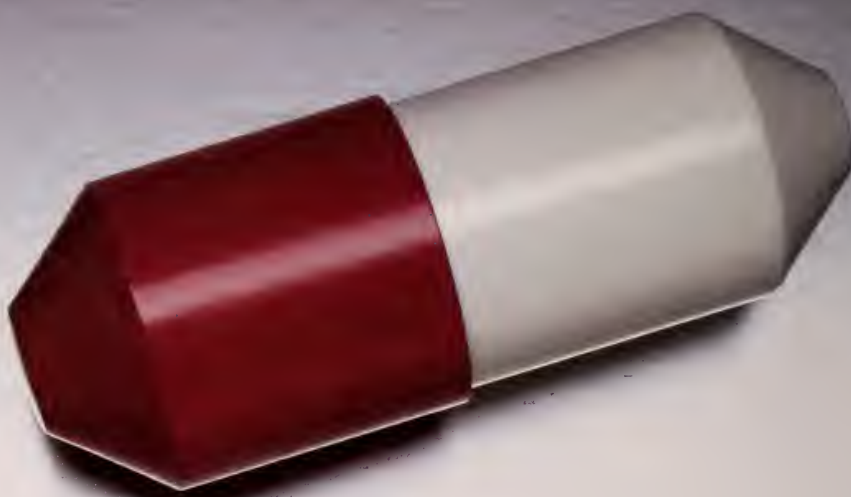
Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics); Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

In Hypertension*... When You Need to Conserve K⁺

Remember the Unique Red and White Capsule: Your Assurance of SK&F Quality

Serum K⁺ and BUN should be checked periodically (see Warnings and Precautions).



Potassium-Sparing **DYAZIDE®**

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Over 17 Years of Confidence

a product of
SK&F CO.
Carolina, P.R. 00630

The unique
red and white
Dyazide® capsule:
Your assurance of
SK&F quality.



Members in the News

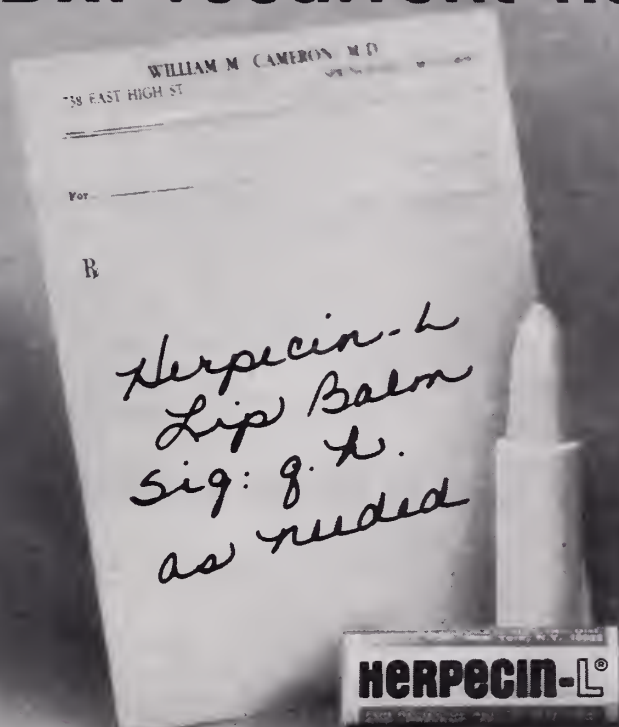
Branham B. Baughman, M.D. Honored

Branham B. Baughman, M.D., a Frankfort surgeon, was recently honored for 50 years of service to his community and state. Doctor Baughman pioneered many innovations in health care delivery in Kentucky and was one of five physicians serving on a committee to organize a prepayment plan which resulted in the formation of Blue Shield. In 1953 he was appointed to a

committee by Governor Lawrence Weatherby to study the need of another medical school in Lexington.

A Fellow of the American College of Surgeons, Doctor Baughman served as Chairman of the Kentucky State Board of Health and was a member and Past Chairman of the KMA Board of Trustees.

Dx: recurrent herpes labialis



"Herpecin-L Lip Balm is the **treatment of choice** for peri-oral *herpes*." GP, New York

"In the management of *herpes labialis*, Herpecin-L is a **conservative approach** with **low risk-high benefit**." Derm., Miami

"Staff and patients find Herpecin-L remarkably **effective**." Derm., New Orleans

OTC. See P.D.R. for Information.
For trade packages to make your
own clinical evaluation, write:
CAMPBELL LABORATORIES INC.
P.O. Box 812-N, FDR, NY, NY 10150

In Kentucky, "HERPECIN-L" Cold Sore Lip Balm is available at all
Begley, SuperX and Taylor Drug Stores and other select pharmacies.

A Call For Museum Acquisitions

The Medical Foundation of the Jefferson County Medical Society is developing a museum emphasizing local and regional medical progress. The museum is located in the historically restored medical school at First and Chestnut, now known as the Community Health Building.

The first phase of the museum's goals is to depict changes in medical education over the last 150 years during the life of this building and in association with it.

We are interested in:

1. Photographs relevant to this medical community during the past 150 years, particularly photographs of doctors, students and staff utilizing the building.
2. Annuals, yearbooks, or journals to use as reference in dating objects or people associated with the medical school and medical community.
3. Artifacts which can be documented as to ownership, use, and direct association with the life of the building — its teachers and students.

The Museum Committee, Co-chaired by Arthur H. Keeney, M.D. and Forrest S. Kuhn, M.D., would appreciate any help that you can give us. Acquisitions will be considered permanent gifts to the museum, and screening of gifts will be scheduled in your home or office at your convenience. Although no monetary appraisals can be given by the Committee, we will issue a certificate of donation for tax purposes.

Please direct inquiries and information to Mrs. Frances K. Wood, 101 West Chestnut Street, Louisville, Kentucky, 40202 or call 589-2001.

CHANGING ADDRESS?

**Please let us know at least
eight weeks before chang-
ing your address.**

Send new address to:

**Journal of the Kentucky
Medical Association**

3532 Ephraim McDowell Drive

Louisville, Ky. 40205

Postgraduate Page

JANUARY

- 4 The Asthmatic Child, Bingham Child Guidance Clinic, Conference Room, Louisville
- 7-17 "Medical Updates V: A Review of Recent Advances in Medicine," Office of Continuing Medical Education Quillen-Dishner College of Medicine Location: Vail, Colorado

FEBRUARY

- 1 Reading Disabilities, Bingham Child Guidance Clinic, Conference Room, Louisville
- 6-8 An NIH Consensus Development Conference of Use of Diagnostic Ultrasound Imaging in Pregnancy, National Institute of Health, Bethesda, Maryland
- 19-24 Fifteenth Family Medicine Review, Hyatt Regency Hotel, Lexington, Kentucky

MARCH

- 1-2 The Microcomputer Jungle: Impact on Health Care University of Kansas Medical Center, Kansas City
- 9-11 Advance Cardiac Life Support Courses, University of Kentucky Medical Center, Lexington, Kentucky
- 14-16 10th Annual Symposium on Psychopharmacology, Seelbach Hotel, Louisville, Kentucky

- 15 Sports Medicine: Rehabilitation of the Injured Athlete University of Kansas Medical Center, Kansas City
- 15-17 American Cancer Society Fourth National Conference on Human Values and Cancer, New York, New York
- 16-17 Midwest Paint Society 8th Annual Scientific Meeting Practical Management of Common Pain Syndromes Westin-Crown Center, Kansas City, Missouri
- 3/26-4/6 Clinical Cytopathology for Pathologists, 1984 Postgraduate Course, The John Hopkins University School of Medicine, Baltimore, Maryland
- 28 The Natural History of Mental Retardation, Bingham Child Guidance Center Conference Room, Louisville, Kentucky

APRIL

- 2-4 An NIH Consensus Development Conference on Osteoporosis National Institute of Health, Bethesda, Maryland
- 4 Residual Attention Deficit Disorders, Bingham Child Guidance Center, Conference Room, Louisville, Kentucky
- 25-28 10th Annual Postgraduate Course in High Risk Pregnancy, Hyatt Regency, Louisville, Kentucky
- 25-28 Annual Meeting of the Virginia Society of Ophthalmology, Inc. Williamsburg, Virginia

1984 CME Cruise/Conferences on Legal-Medical Issues



APPROVED FOR
18-24 CME CREDITS
CATEGORY 1
By the Suffolk Academy
of Medicine

The programs listed below were scheduled prior to 12/31/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act - P.L. 94-445, effective 1/1/77, with the exception of the Hawaiian Conference, which conforms to the requirements of P.L. 97-424.

- | | |
|---|--|
| • January 7-18 (from Ft. Lauderdale, FL)
11 Day Caribbean | • June 30-July 14 (from San Francisco, CA)
14 Day Alaskan |
| • April 14-21 (from Los Angeles, CA)
7 Day Mexican Riviera | • July 25-Aug. 4 (from Ft. Lauderdale, FL)
10 Day Caribbean |
| May 19-26 (from Honolulu, HI)
7 Day Hawaiian | Aug. 11-25 (from Venice, Italy)
14 Day Mediterranean |

***FLY ROUNDTRIP FREE**
EXCELLENT GROUP FARES — FINEST SHIPS

The number of participants in each conference is limited.
Early registration is advised.

For color brochure
and additional
information contact.

International Conferences
189 Lodge Ave.
Huntington Station, N.Y. 11746
Phone (516) 549-0869

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication. Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITIES

Wanted — Family Physician to join two physician family practice in western Kentucky town of 8,000. Fully equipped modern office located next to 60 bed hospital. Send resume to: Ralph Cash, Jr., M.D., P.O. Box 627, Princeton, KY 42445

ABIM solo internist in beautiful college town, seeks general internist or subspecialist to join him in July of 1984. Please send resume to Bennet D. Cecil, M.D., 307 W. Broadway, Danville, Kentucky 40422

FOR SALE two physician FAMILY PRACTICE. South Central Kentucky location. Fully equipped clinic near open staff hospital. Retiring, but will stay for orderly transition period. Clinic building for sale or lease. Write P.O. Box 20218, Bowling Green, KY 42101

Medical Equipment for Sale: exam rooms, x-ray, lab, general office equipment. Financing available. Call 606/269-4668

Hilton Head Vacation Villa Palmetto Dunes — New professionally decorated two bedroom/two bath villa/full kitchen and laundry. Directly on 15th tee of Fazio. Private pool, tennis, near ocean and Shelter Cove Harbor. Dennis R. Molony, M.D., 18 North Fort Thomas Avenue, Fort Thomas, KY 41075 (606) 781-5020

Another year has come and gone — they do slip up on one!

How long has it been since you reviewed your disability coverage?

A P L
A.P. LEE AGENCY, INC.

631 Lincoln Federal Bldg.
Fourth Avenue
Louisville, Kentucky 40202
583-1888

The weight of objective evidence supports the clinical efficacy of Dalmane®^{IV}

flurazepam HCl/Roche
15-mg/30-mg capsules



- Studied extensively in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.¹⁻¹²
- Studied in over 200 clinical trials involving over 10,000 patients.¹³
- During long-term therapy, which is seldom required, periodic blood, kidney and liver function tests should be performed.
- Contraindicated in patients who are pregnant or hypersensitive to flurazepam.
- Caution patients about drinking alcohol, driving or operating hazardous machinery during therapy.



References: 1. Kales A et al: *J Clin Pharmacol* 17:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 3. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 4. Kales A et al: *JAMA* 241:1692-1695, Apr 20, 1979. 5. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 15, 1978. 6. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 7. Kales A, Kales JD: *Pharmacol Physicians* 4:1-6, Sep 1970. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Dement WC et al: *Behav Med* 5:25-31, Oct 1978. 10. Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 11. Karacan I, Williams RL, Smith JR: The

sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. 12. Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. 13. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

Dalmane®^{IV}
(flurazepam HCl/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

Contemporary Hypnotic Therapy

Dalmane® [flurazepam HCl/Roche] Stands Apart

Library of SUB
College of Phys. of Phil.
19 South 22nd St.
Philadelphia, PA 19103

Only one
sleep medication
objectively
fulfills all these
important
criteria:

- Rapid onset of sleep.¹
- More total sleep time on the first 3 nights of therapy.¹
- More total sleep time on nights 12 to 14 of therapy.¹
- Continued efficacy for at least 28 nights.²
- Seldom produces morning hangover.³
- Avoids rebound insomnia when therapy is discontinued.^{1,4,5}



15-mg/30-mg capsules

Dalmane® ^{IV}
flurazepam HCl/Roche



Roche Products Inc.
Manati, Puerto Rico 00701

Copyright © 1984 by Roche Products Inc. All rights reserved.
Please see summary of product information on reverse side.

STACKS

JOURNAL OF THE

Kentucky Medical

ASSOCIATION



STRESS
page 115



**as one physician
to another. . .**



**"Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?"**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You. Call or Write:

Marketing Department, Kentucky Medical Insurance Company - P.O. Box 35880 Louisville, Ky. 40232

TOLL FREE 1-800-292-1858 - Louisville Area 459-3400

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 3

March 1984

SCIENTIFIC

Stress: A Psychosocial View 115
John J. Schwab, M.D.

New Concepts in Vascular Access 121
R. Neal Garrison, M.D., Ken E. Richardson, M.D., Ronald L. Wathen, M.D. and Gerald D. Temes, M.D.

Coagulopathy Associated with Broad Spectrum Antibiotic Therapy 125
Anthony W. Lee, M.D., Warren H. Proudfoot, M.D. and Ward O. Griffen, Jr., M.D., Ph.D.

Repair of Aortic Root Aneurysms With Associated Aortic Valve Insufficiency 127
Roy Bowling, M.D., Constantine Mavroudis, M.D., Laman A. Gray, Jr., M.D. and Robin Howe, M.D.

EDITORIAL

Editorial Cooperation 133

ASSOCIATION

Highlights of AMA Interim Meeting 141
Doctor Rainey Seeks AMA Position 145

REGULAR FEATURES

President's Page 113

Members 145

Postgraduate Page 146

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific; Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign. (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984. Kentucky Medical Association.

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40403 (606) 986-2323	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1986
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6143	1984

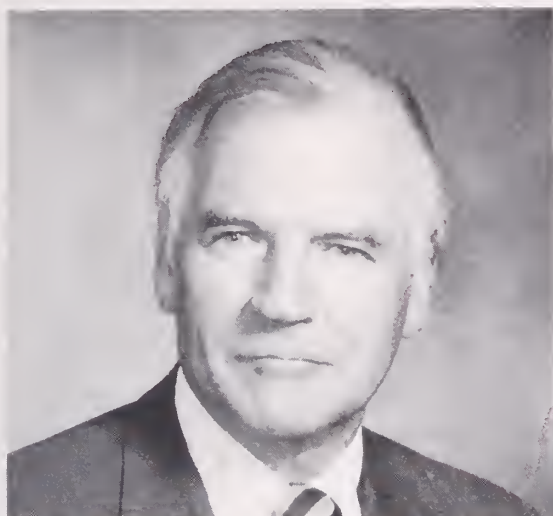
Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6472	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574	1986
4th.....	THOMAS R. TAYLOR, M.D., 914 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th.....	BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111.....	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40342 (502) 839-6981.....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3748	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1984
12th.....	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 324-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

MARCH BUYERS' GUIDE FOR *JOURNAL OF KMA*

Classified.....	148	Lexington Clinic	132
Clinic Manager Systems	143	Eli Lilly & Company	138
General Leasing Corporation	134	Medical Protective Company	147
International Conferences.....	134	Pfizer Laboratories.....	134, 135
Insurance Corporation of America.....	131	Roche Laboratories	149, 150
KMA Insurance Agency, Inc.....	137, 144	Spectrum Emergency Care.....	148
KMCO.....	139	Upjohn Company	136
KMIC	110	U. S. Air Force.....	140
A. P. Lee Agency, Inc.....	114		

PRESIDENT'S PAGE



As you read this page, the 1984 General Assembly will have completed more than half of its term. At the time of this writing, we are really just getting into it. The Legislative Quick Action Committee, under the able direction of Doctor Carl Cooper, is meeting nearly every Wednesday night in Frankfort to review legislation. We then alert key physicians throughout the state to approach their Legislators on our stand on given Bills.

Again we find ourselves in a fight with optometrists as they attempt to make inroads into the practice of medicine. They are closely followed by a number of other groups who are trying to enlarge their fields through direct patient billing. Most noticeable among these are the nurse practitioners. However, the physiotherapists, nutritionists and others follow close behind. For these reasons, the Kentucky Medical Association finds itself again on the defensive as regards major legislation and its interface with the Legislator.

On the positive side, we have an excellent bill on the definition of brain death which we feel has a good chance of passing. We shall be supporting a revised medical practice act which will materially strengthen the hand of our active Board of Licensure. There are some other commendable bills which include the donation of various organs for transplant. Unfortunately, some of our finest offensive efforts get weighed down by amendments tagged on by interests opposed to medicine in general, just to give us trouble. Such may be the fate of the organ transplant bill.

With regard to Legislature, I cannot stress enough the importance of working with and through the Kentucky Medical Association on the various issues that affect subspecialties and individuals. Working together, we can accomplish a great deal more than if individual physicians or specialty groups go off on their own to achieve their goals. The KMA staff has two full-time men in Frankfort for this Legislature. They are well acquainted with the majority of the Legislators and know their whims and personalities. I am much impressed with what they are able to do for us.

The KMA leadership and staff have met with the Cabinet for Human Resources. At the present time, we are in the early phases of the present administration so that all is suffused with a glow of well being. However, I would like to say that despite the current rose tinted atmosphere, I detect a new, more substantial feeling of cooperation in the Cabinet for Human Resources and they seem eager for input. The new administration appears to be practical, pragmatic, and more understanding of the vicissitudes of life, more so than any group that's been at Human Resources in past memory. At this point, I don't detect any Kennedy liberalism for the leaders in the Cabinet for Human Resources and see a stronger desire to help the people of Kentucky in a practical way.

Our stress points in early meetings have been: (1) To stop the inroads of various ancillary groups who want to begin the practice of medicine without proper education and experience. (2) To initiate no new programs which start with a small budget but which shortly demand large funding thus detracting from other segments of money spent and available for basic medical care. All new programs start off mildly but soon demand more funding, of which there is a limited amount. (3) We have stressed to the Department that we are anxious for input on the budgeting process and that physicians are aware of Kentucky's limited resources. We are also accutely aware that the Governor's primary thrust is to upgrade primary and secondary education. We just want to have some advance knowledge of the Cabinet for Human Resources' proposed programs and policies, and would like the opportunity to voice what we think is the best way to administer and to apportion the health care dollar available in the state of Kentucky.

With the approach of spring, the Trustee meetings are beginning. By the time you read this, the writer will have had the pleasure of attending Trustee meetings in northern Kentucky and in Somerset. I am looking forward with anticipation to visiting parts of the

state I don't normally get to see. The Kentucky Medical Association is eager to share ideas with you, to answer any questions you may have, and to try to bring us all closer together. Mrs. Holloway and I are looking forward to these visits and the chance to visit with many of you in a relaxed atmosphere.

J. B. Holloway, M.D.
KMA President

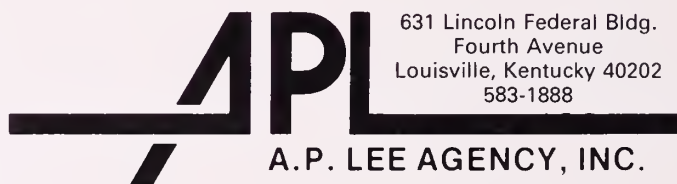
EVERYBODY'S DOING WHAT?!

Stockbrokers are nearly bankers; insurance companies are stockbrokers; and bankers now sell stock. It's becoming a big complex circle!

We have always believed that it is impossible to be an expert in all fields and to serve several masters.

We still specialize in group disability income and still consider servicing what we sell most important.

Sponsored by the physicians in Kentucky since 1939.



Stress: A Psychosocial View

JOHN J. SCHWAB, M.D.

In this article I shall present a review and discussion of the psychosocial aspects of stress. Historically, our concept of stress is derived from 19th century views of the adverse effects of increasing industrialization and urbanization, from Claude Bernard's and Walter Cannon's work in physiology, and from Selye's formulation of the General Adaptation Syndrome. A survey of research in three areas provides an up-to-date appraisal of social stress. First, studies of social change and illness in the 1950s and 1960s revealed that illnesses such as hypertension, coronary heart disease, and psychosomatic disorders were related to rapid social changes in populations. These studies were superseded by investigations of stressful life events, the second major area. Research on stressful life events has shown that they are associated with the onset of physical and mental illnesses. Some of our research revealed a reciprocal influence between symptomatology and stressful life events over time. The third area consists of recent studies of the relationship between economic recessions and illness rates which indicate that unemployment is associated with increased morbidity and mortality. The changes in life style produced by unemployment have deleterious effects. At the present time, psychoneuroimmunology is the area in which advances in knowledge about stress should be forthcoming during the next decade. Those advances will enable investigators to proceed with productive studies of the psychosocial aspects of stress that complement the progress in biological research.

Throughout most of the Western world, and especially in contemporary America, the word, "stress" is used ubiquitously—discussed almost daily on both radio and television and reported in newspaper articles. People fear stress. Many consider it responsible for emotional turmoil and for such well-known psychosomatic conditions as peptic ulcer; and some think that its effects can be lethal, for example, that it is the cause of coronary heart disease. Patients expect their physicians to ask them about stress at work or at home, to provide palliative remedies, and to advise them on how to escape its ravages.

A recent example of the extreme concern about stress in the U.S.A. is shown by Serbin and his colleagues¹ nationwide survey of 1008 adults aged 18 to 56. A large number of respondents reported stress that they attributed to social changes: sexual permissiveness, interactions with other people, and the new social roles of the sexes. Sixty-one percent of the women reported anxiety and 52% of the men depression. Serbin states:

The new social and political attitudes and values are inducing serious stress in the majority of our population. Stress permeates the whole organization of the life of the individual from the struggle to redefine (one's) social sex role at work or in marital interaction to that of finding a satisfactory approach to conduct his/her life when confronted . . . with a loosely codified system of social ethics and values.

In this article I shall look briefly at the historical background of stress and the evolution of the concept of it in medicine. Then, I shall review studies of social stress in three areas: 1) social change and illness, 2) life events and stress, and 3) unemployment and mortality.

Historical Background

From a historical perspective, concern about stress is not new. Concern is heightened during periods in history when traditional beliefs and customs are changing, when a social upheaval is modifying the structure

of a society, and when social and cultural norms are in a state of flux. Although the word “stress” entered the English language in the 14th century as a shortened version of “distress,” many of our current views about it have their cultural roots in the 18th and 19th centuries. There was mounting worry about the deleterious influence of the Industrial Revolution and of the concomitant changes in social organization on the well-being of society and its members. Physicians and scientists, Rousseau and the French philosophes, and the English and German Romantic Poets believed that industrialization and urbanization jeopardized the natural rhythms of living and thereby produced diseases of civilization, increased mental illness, and caused widespread misery and unhappiness.

Charles Turner Thackrah,² the “town’s surgeon” and founder of the medical school at Leeds, England, was the first to emphasize the concept of stress that is meaningful today. Just the title of his classic 1831 essay is, in itself, timely—“The Effects of Arts, Trades, and Professions, and of Civic States and Habits of Living on Health and Longevity: With Suggestions for the Removal of Many of the Agents which Produce Disease and Shorten the Duration of Life.” Thackrah maintained that:

Civilization has changed our character of mind as well as of body. We live in a state of unnatural excitement,—unnatural because it is partial, irregular, and excessive. Our muscles waste for want of action: our nervous system is worn out by excess of action.

In his 1878 volume, *Insanity in Ancient and Modern Life*, Daniel H. Tuke³ concluded that mental illness was probably much rarer in early and uncivilized groups than in societies which had attained highly developed cultures. Also, his analyses of the case registers in Great Britain, 1857 to 1875, showed that insanity had been increasing. He feared that the complexity of life in the latter part of the 19th century was threatening to exceed the capacity of the human being’s nervous system for adaptation.

In the 1890s, Emil Durkheim⁴ attributed the rise in suicide and malaise in France to anomie—the normlessness and the changes in the social order accompanying industrialization and urbanization. He deplored the loss of the secondary institutions (*les corps intermediaire*) and the fragmentation of neighborhoods and local social support systems that he considered essential for well-being. Our present day concepts of stress

continue to be influenced by such views of the adverse effects of the rapidly changing industrial and technological society in which we live.

The medical concept of stress developed later. It grew out of the Darwinian theory of adaptation and was developed by the great scientists, especially Claude Bernard in the 19th and Walter B. Cannon in this century. They conceptualized the “internal milieu” and homeostasis and emphasized the importance of biochemical, physiological, and psychological equilibria for the maintenance of health.

Cannon’s⁵ work on the adrenal medulla and on epinephrine led to the formulation of the fight-flight hypothesis. Later in life, his interest in stress extended to the social environment. In the early 1940s, he became interested in voodoo death⁶ which had first been described in South American Indians by Soares de Souza in 1587. Voodoo death occurs when the offending member of the tribe is ceremonially ostracized and leaves the tribe; the person is usually found dead, without apparent cause, within the next 24 to 48 hours. Cannon hypothesized that voodoo death was caused by “shocking emotional distress—to obvious or repressed terror,” a state of shock produced by excess adrenaline. Lester⁷ has reviewed Cannon’s hypothesis and also Kurt Richter’s work which showed that when wild rats were placed in an experimental situation in which they could neither fight nor flee, they “gave up” and died in a parasympathetic condition of hopelessness. Lester views voodoo death, and its equivalent forms seen in medical and surgical patients who “give up,” as the advanced condition of helplessness and hopelessness described by Engel,⁸ Schmale⁹ and their colleagues. Lester⁷ uses Kalish’s terminology; the individual is first “socially dead” and once that is accepted as a fact, he or she dies—psychologically and somatically.

In the late 1930s and after World War II, stress began to receive widespread attention in medicine as a result of Hans Selye’s¹⁰ formulation of the General Adaptation Syndrome, a non-specific model of stress that explained mental and physical reactions to stressors and also the development of such “diseases of adaptation” as hypertension. Selye maintained that stress could be thought of as “the common denominator of all adaptive reactions in the body” but that both stressors and stress could be measured only by the resulting psychophysiological responses. His physiological model of stress has been adopted and adapted in psychiatry and physiology; tangible or intangible stressors, *eg*, loss

of money, a death in the family, or other events, require emotional and often physical changes that lead to stress.

Social Change and Illness

A summary of the results of investigations in three major areas can provide an appraisal of the current knowledge of the psychosocial aspects of stress.

The first area consists of studies of social change and illness, many of which were conducted from 1950 through 1975. A prominent one was conducted in the small, predominantly Italian community of Roseta, PA, which had a remarkably low incidence of coronary heart disease—despite heavy smoking and diets rich in cholesterol—until the town began to be industrialized. Other examples are: Stamler and his colleagues¹¹ found that hypertension was much more common in blacks who had moved from rural to urban areas (Chicago) than in those who continued to live in rural settings; Tyroler and Cassell¹² reported that rates for heart disease increased markedly between 1950 and 1960 in rural counties in North Carolina that were becoming urbanized; Holmes¹³ showed that tuberculosis was more common in the “marginal” people in Seattle—those deprived of meaningful social contact—than in the general population; and Seguin¹⁴ maintained that Peruvians who moved from the Sierras to the cities of the plain were undergoing “psychosomatic disadaptation.”

In our Florida Health Study¹⁵ of a random sample of 1645 respondents aged 17 to 92 selected from the general population, we found that significantly more of the impaired—those with symptoms and who were dysfunctional—than the nonimpaired subjects reported being “upset very much” by nine of 14 social change processes we evaluated. Some of the upsetting ones were: more traffic, outsiders moving in, people more unfriendly, no voice in community affairs, fewer jobs available, and a faster pace and pressure in everyday life.¹⁶

Life Events and Stress

Generally, such studies of social change and illness have been superseded in the 1970s by investigations of stressful life events as researchers have sought to identify and to quantify stressors more precisely. The scientific background for research with life events scales—the second major area—stems from Adolf Meyer’s teaching that illness often is a reaction to life events such as successes or failures in school or at work, moves, births and deaths in the family, etc. Also, it was given

an impetus by the findings from studies of object loss in humans and other primates.

In the Midtown Manhattan Study,^{17,18} Rennie, Srole, Langner and their colleagues evaluated a stress-strain model of impairment. Each of the 1660 randomly selected adult respondents was questioned about stressful factors in childhood and in adult life such as childhood economic deprivation, living in a broken home during childhood, poor physical health during adult life, socioeconomic worries, poor interpersonal affiliations, *etc.* The researchers found that the “sheer number of (stress) factors reported is the most efficient method of predicting mental health risk.”¹⁹ A hypothetical person reporting three factors was at greater risk than a person reporting only one or two factors. Langner²⁰ explains:

On the average, we can say that the greater the life stress, the greater the deformation or disturbance of the human material put to the test.

Another important finding was the three-way relationship between stress scores, socioeconomic status, and risk for impairment. When the stress score was zero, the risk for impairment was almost identical in the high, the middle, and the low socioeconomic groups but, as the stress score increased, the risk for impairment increased much more sharply for the low socioeconomic group than for the other two groups. Langner hypothesized that the increased vulnerability to stress shown by the low socioeconomic group might be attributable to several possibilities:

1. That the poor respondents had less resistant personalities and were less able to recover from stress than those in the higher social strata;
2. that respondents in the lower socioeconomic group may not have had access to coping factors such as money and education that would cushion the effects of stressors;
3. that the poor might have employed more impairing adaptive devices than did their counterparts in the higher socioeconomic groups.

In 1967, Holmes and Rahe²¹ developed the Social Readjustment Rating Scale (SRRS) to quantify stressful and other life events requiring adjustment. Their life events range from major ones such as the death of a spouse, a jail term, or marriage to minor changes in social activities and customary happenings such as holidays or vacations. Each event has been given a mean value: the death of a spouse—100, divorce—73, a change in residence—20, Christmas—12, and a minor violation of the law a score of 11. Holmes and his colleagues

have found that as the total life-change units (LCU) score rises, the likelihood of illness increases. Higher scores are significantly related to:

1. A shorter lapse of time between the stressful events and the onset of disease, and
2. the greater likelihood of having a more serious illness, physical or mental.

During the last 15 years a great deal of life events research has been conducted. For example, Paykel and his associates at Yale²² found that depressed patients reported the occurrence of about three times as many events in the six months preceding the onset of depression as did matched controls. Particularly, the depressives reported more undesirable events and more exits from the social field than did the controls, but there were no significant differences between the two groups in reports of the frequency of occurrence of desirable life events.

Holmes and Rahe and his colleagues have been refining their stressful life events scales. They have collaborated with Theorell²³ who found in Sweden that subjects' weekly life events scores correlated with the urinary excretion levels of catecholamines.

In our Florida Health Study,¹⁵ which included a three-year follow-up on about one-third of the 1645 subjects, we searched for factors responsible for changes in health status. Multivariate analyses showed that the most significant predictor of 1973 impairment scores was the respondents' 1970 impairment scores; the 1970 scores alone explained 53.4% of the variance in the 1973 scores. Of 61 life events that occurred between 1970 and 1973, only nine* were significantly related to changes in impairment scores. They explained only 2.1% of the variance in the 1973 scores.

A relatively new finding was that impairment scores were predictive of life events scores; those with high impairment scores in 1970 tended to have higher life events scores in 1973 than did the respondents with lower impairment scores in 1970. This finding suggests that a reciprocal influence was taking place between life events and symptomatology over time. This reciprocal influence is a somewhat overlooked factor that may be affecting the results of research on stressful life events.

* 1) the occurrence of a major illness, 2) having an extra-marital affair, 3) financial difficulties, 4) negative changes in work conditions, 5) serious argument with a non-resident family member, 6) unemployment for at least one month, 7) increased arguments with the spouse, 8) a wanted pregnancy, and 9) the marriage of a child.

Although almost everyone believes that stressful life events are associated with stress and the development of physical or mental illness, research of this type is handicapped by serious problems. First, most of the studies of life events have been retrospective and thus may lack reliability. The person's illness may influence recall either because the person places greater emphasis on an event now that illness has occurred, or because it is now dismissed as trivial, or even forgotten. Brown and his colleagues²⁴ in London maintain that such retrospective reporting is seriously contaminated. They are conducting prospective studies in which they also assess the contextual meaning of the event, *ie*, the timing of the occurrence in relationship to what else was happening in the subject's life.

A second criticism is that some of the events may have been symptomatic of—not antecedent to or independent of—mental illness. For example, the loss of a job or a divorce may reflect depression or a personality disorder that is already producing difficulties rather than disposing to or precipitating the onset of illness. Therefore, conclusions about the possible etiologic significance of life events may be scientifically invalid. A third problem is that various groups in our pluralistic society may assign differing weights or values to an event, or familial or personal circumstances and attitudes may invalidate a standard value or score.

In attempting to understand the difficulties with life events research, we should recall that early in this century, the great American sociologist, W.I. Thomas²⁵ insisted that interrelationships between social life, culture, and "crisis" (life events) on one hand and the individual's responses on the other, depended little on attitudes and values but almost entirely on the individual's "definition of the situation." This fundamental tenet of social psychology accounts in part for individual variations in response to stressors. Thomas emphasized that there is

... always a rivalry between the spontaneous definitions of the situation made by the member of an organized society and the definitions which his society has provided for him.

Work in this area is proceeding but there are no new findings of special importance. Current research is devoted mainly to methodology.

Unemployment and Mortality

The third major area of research on social stress consists of very recent studies of the relationships between

unemployment and both morbidity and mortality rates. Based on his work which showed that economic downturns were significantly associated with increased admissions to public and private psychiatric hospitals in the United States (1845-1965), Brenner²⁶ and others²⁷ have developed a research model to examine the hypothesis that cyclic fluctuations in the economy are associated with higher illness and mortality rates. Essential features of the model are:

1. Despite a marked lowering of mortality rates in the United States and Great Britain since 1900, the mortality differential between the social classes has not changed; indeed, it may have increased. For example, the neonatal and postnatal mortality rates are still more than twice as high in the unskilled (Class V) as in the professional and business groups (Class I)—just as they were years ago.
2. Fluctuations in the economy are associated with at least two morbidity and mortality sequences. One involves persons employed in such cyclic industries as construction and the automobile industry. They live with economic instability that reaches crisis proportions when a recession occurs. A recession initiates a morbidity process which results in higher than expected mortality rates two to three years later. The other sequence is more structural in that it is associated with such major changes in the national economy as those resulting from technological innovation. Highly skilled workers may be replaced by machines or required to learn new, demanding skills. Consequently, many persons undergo downward social mobility; a higher mortality rate is seen two to three years hence, particularly when the affected individuals attempt to become reintegrated into the economy during a period of rapid growth.

From his new research in Great Britain, Brenner²⁸ concludes that cycles of recession and rapid economic growth increase mortality mainly by enlarging the already existing socioeconomic differentials in mortality. A recent Editorial in *The Lancet*²⁹ entitled, "Does unemployment kill?" notes:

A 1% rise in unemployment sustained over a six-year period could bring about 36,890 deaths in the United States and a rise in indicators of social morbidity (admissions to mental hospitals and to prisons). . . unemployment may be the great "new plague."

If this is so, it is important to identify the stressors involved with recessions. They include uncertainty, changes in behavior as evidenced by increased alcohol and tobacco use, role change, the deprivations of poverty suggested by higher infant mortality rates, and/or interactions of all of those and other stressors.

In *Emotional Difficulties at Work and at Leisure*, Braceland,³⁰ mentions that altruists are concerned about the unemployment rate for they know it adds to a nation's economic and cultural woes and to the distress of thousands of families. He states: "The loss of a job, especially for a man with a family, is often an ego-shattering blow." He continues: work is a fundamental resource, "a face to show society." It provides a person with a sense of mastery, meets certain basic emotional needs, is a purveyor of prestige, and provides some sense of belonging to, or status in, a group. But without employment, a man's position in the home and family changes: ". . . life deteriorates into a sodden repetition of job-seeking and lounging about the house. . . ." Depression, alcoholism, and illness often ensue.

Concluding Remarks

It is commonly believed both by scientists and by the laity that the average American is subjected to more stressors than is healthful for him or for her and that our rapid rate of social change is responsible, in large part, for the stressful character of our lives. In 1982, the Institute of Medicine completed the project, "Research on Stress in Health and Disease." In discussing it in an Editorial in *Science*, Hamburg³¹ declares that half of the mortality from the leading causes of death is influenced by life style, especially behavioral risk factors and maladaptive responses to social pressure.

The importance of stress, of life style, and of maladaptive responses to social pressures was demonstrated by Frank Barron's³² longitudinal research with healthy graduate students in California and George Vaillant's³³ report of the study of Harvard students over 35 years. They found that even the most fortunate of persons live lives that have their full share of difficulty and private despair. Vaillant states:

. . . psychopathology and the tragedies of everyday existence are always with us . . . health or soundness is a way of reacting to problems, not an absence of them. . . . It is effective adaptation to stress that permits us to live.

In their new volume, *Health and Behavior: Frontiers of Research in the Biobehavioral Sciences: Report of a*

Study, Hamburg and Elliott³⁴ conclude:

. . . the importance of behavioral factors for health becomes increasingly apparent. . . . New gardens of science must be cultivated. Old biases must be discarded and conventional wisdoms set aside in the face of new observations, fresh ideas, and neglected social responsibilities.

Their emphasis on neglected social opportunities is depicted tragically by the magnitude of our current unemployment problem and the findings about unemployment, recessions, the fluctuating business cycle, mental and other illnesses, and morbidity and rates that have been discussed.

The "new gardens of science" being cultivated are, I think, in psychobiology (in Adolf Meyer's words, "a study of mentally integrated behavior . . . a science of man.") and in psychoneuroimmunology. They are much more fruitful ground for research on stress and health and illness at this time than are studies of social stress. But I disagree with Hamburg and Elliott's advice about setting aside conventional wisdoms. From studies of the psychosocial aspects of stress we have already gained a great deal of knowledge about stress; the problem is that we have neither acquired nor put to use the wisdom needed to obtain benefits from what has been learned. We should recall T.S. Eliot's³⁵ lines:

Where is the life we have lost in living?

Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?

References 1. Serbin J: Reported in "Stress, anxiety increase as social values change, *Psychiatric News* 16:22,33, 1981. 2. Thackrah CT, cited in *Three Hundred Years of Psychiatry 1535-1860: A History Presented in Selected English Texts*, R. Hunter and I. MacAlpine Editors, London, Oxford University Press, 1963, pp. 826-827. 3. Tuke DH: *Insanity in Ancient and Modern Life with Chapters on its Prevention* London, Macmillan, 1878. 4. Durkheim E: *Suicide* Glencoe, IL, Free Press, 1951. 5. Cannon WB: *The Wisdom of the Body* New York, WW Norton, 1932. 6. Cannon WB: Voodoo death, *Psychosom Med* 19:183-190, 1957. 7. Lester D: Voodoo death: Some new thoughts on an old phenomenon, *American Anthropologist* 74(3):286-290, 1972. 8. Engel GL: A life setting conducive to illness, *Bull Menninger* 32:355-362, 1968. 9. Schmale AH: *Object Loss, "Giving Up" and Disease Onset: An Overview of Research in Progress*, Washington, DC, Walter Reed Army Institute of Research, 1964. 10. Stamler J, Kjelsberg M, and Hall Y: Epidemiologic studies on cardiovascular renal diseases: I. Analysis of mortality by age-race-sex-occupation, *J Chron Dis*, 12:440-445, 1960. 11. *Social Stress*, S Levine and NA Scotch, Editors, Chicago, Aldine, 1970. 12. *Ibid* : p. 195. 13. Seguin CA: Migration and psychosomatic disadaptation, *Psychosom Med*, 18:401-409, 1956.

14. Schwab JJ, Bell RA, Warheit GJ, and Schwab RB: *Social Order and Mental Health* New York, Brunner/Mazel, 1979. 15. *Ibid* pp. 141-142. 16. Srole L, Langner TS, Michael ST, et al: *Mental Health in the Metropolis. The Midtown Manhattan Study*, Thomas A.C. Rennie Series in Social Psychiatry, Vol. I, New York, McGraw-Hill Book Co., 1962. 17. Langner TS and Michael ST, *Life Stress and Mental Health. The Midtown Manhattan Study*, Thomas A.C. Rennie Series in Social Psychiatry, Vol. II, Free Press of Glencoe, London: Collier-Macmillan, Ltd., 1963. 18. *Ibid*: p. 149. 19. *Ibid*: pp. 150-151. 20. Holmes TH and Rahe RH: The social readjustment rating scale, *J Psychosom Res* 11:213-218, 1967. 21. Paykel ES, Meyer JK, Dienes MN et al: Life events and depression: A controlled study, *Arch Gen Psychiat* 21:763-770, 1969. 22. Rahe RH, Floistad I, Bergan T et al: A model for life changes and illness research, *Arch Gen Psychiat*, 31(2):172-177, 1974. 23. Brown GW, Meaning, measurement and stress of life events. In *Stressful Life Events: Their Nature and Effects*, BS Dohrenwend and BP Dohrenwend, Editors, John Wiley and Sons, 1974, pp. 217-243. 24. Thomas WJ cited by Martindale DA: *The Nature and Types of Sociological Theory*, Boston, Houghton Mifflin, 1960, p. 348. 25. Brenner MH: *Mental Illness and the Economy*, Cambridge, MA, Harvard University Press, 1973. 26. Morris JN: *The Uses of Epidemiology, 2nd Edition*, Baltimore, Williams and Wilkins, 1964. 27. Brenner MH: Mortality and the national economy, *Lancet*, Vol II for 1979 (8142):568-573, 1979. 28. "Does unemployment kill?," *Lancet*, Vol I for 1979 (8118):708-709, 1979. 29. Braceland F: *Emotional Difficulties at Work and at Leisure*, Hartford, CT, Connecticut Mutual Life Insurance Co., 1966. 30. Hamburg DA: Health and behavior, *Science* 217(4558):399, 1982. 31. Barron F: Twin resemblances in creativity and in esthetic and emotional expression, *Acta Genet Med (Gemollol, Roma)* 25:213-217, 1976. 32. Vaillant GE: *Adaptation to Life*, Boston, Little, Brown, 1977. 33. *Health and Behavior: Frontiers of Research in the Biobehavioral Sciences: Report of a Study*, D.A. Hamburg, G.R. Elliott, and D.L. Parron, Editors, Washington, DC, National Academy Press, 1982. 34. Eliot, TS, *The Rock: Collected Poems 1909-1962*. New York, Harcourt, Brace and World, Inc, 1963:147.

From the Department of Psychiatry and Behavioral Sciences, University of Louisville School of Medicine, Louisville, KY. Presented at the Kentucky Psychiatric Association Session of the 1982 Kentucky Medical Association Annual Meeting, Lexington, KY, 21-23 September 1982.

New Concepts in Vascular Access

R. NEAL GARRISON, M.D., KEN E. RICHARDSON, M.A.,
RONALD L. WATHEN, M.D. AND GERALD D. TEMES, M.D.

Vascular access is of major importance in the practice of modern medicine. As support mechanisms of many organ systems have evolved, the need for repetitive dependable access to the circulation becomes more critical. Total parenteral nutrition, advanced chemotherapeutic regimens, chronic intravenous medication administration, and plasmapheresis for a variety of disease entities all require successful vascular access. Clearly the advent of chronic hemodialysis for end stage renal disease (ESRD) in the early 1960's provided the major impetus for the development of new and innovative access methods.

Quinten *et al*¹ introduced a chronic external teflon-silastic arteriovenous (A-V) shunt in 1960. Although this ingenious device was universally adopted for use in dialysis patients, technical problems persisted. Interference with normal activity, infection at the skin exit sites, and subsequent thrombosis plagued this external device. Many of these disadvantages were removed with the introduction of the subcutaneous A-V fistula by Brescia *et al*² in 1966. This procedure reportedly provides vascular access in approximately 80% of patients on dialysis.³ Once it is developed, the radial-cephalic fistula provides adequate blood flow, is easily accessible, has a low incidence of thrombosis, and is cosmetically acceptable to the patient. Its placement in the nondominant forearm has been described as ideal for patients requiring maintenance dialysis.

On the other hand, several major drawbacks exist in the universal use of the internal A-V fistula: (1) Because it takes weeks for adequate flow to develop, the A-V fistula cannot be used immediately; (2) many patients have an inherent aversion to repeated transcatheter needle punctures, which hinders attempts at training patients in home dialysis; (3) a large group of patients require extended procedures because of a paucity of veins, obesity, or iatrogenic loss of forearm access sites from previous cannulation attempts. In the past, and in all of these access procedures, thrombosis, in-

fection, venous hypertension, arterial insufficiency, and "steal syndrome" occurred occasionally, while formation of aneurysms and stenosis resulting in loss of the access site were commonly associated with procedures requiring repetitive percutaneous needle punctures.^{4,5}

Recently, a new vascular access device that addresses many of these problems for the dialysis patient has been introduced into clinical practice.⁶ The HemasiteTM implantable vascular access system (Renal Systems, Inc., Minneapolis, Minnesota) provides ready atraumatic chronic angioaccess for patients in whom frequent access to high blood flow is required. This device consists of a carbonized titanium T-shaped body with a silicone rubber septum positioned into the shaft; the "T" configuration provides permanent transcatheter access via the shaft and a channel for blood flow. The septum allows repeated puncture into the blood stream with a blunt needle access set. This simple device is designed either for placement of the channel into a previously arterialized vein or for the attachment of Gore-TexTM (Elkton, Maryland) grafts at either end of the channel, allowing placement such as a standard interposition graft A-V fistula. A dacron velour cuff surrounds the body and, with subsequent ingrowth of fibrous tissue, is a barrier to bacterial invasion.

Experience by the authors in placing the HemasiteTM vascular access system in 50 patients at the University of Louisville-affiliated hospitals allows an initial evaluation of the success of the system. Several important lessons concerning placement, site selection and type of device used have been learned from this experience. Three case presentations will outline many of these points and will illustrate some of the advantages offered by this system of vascular access.

Patient #1: This patient was a relatively healthy, 45-year-old man with ESRD who had been on chronic hemodialysis for six months. A standard radial-cephalic A-V fistula had served as his vascular access site without problems, and he was anticipating being trained in

home dialysis. A Hemosite™ was chosen to facilitate this process because the patient was apprehensive about learning self-venapuncture of his A-V fistula. Under regional block anesthesia, a new A-V fistula between the side of the brachial artery and the end of the cephalic vein was constructed above the existing fistula. After this augmentation of blood flow through the cephalic vein, a graftless Hemosite™ was placed in the cephalic vein in the medial upper arm. On the second postoperative day, dialysis was resumed through the Hemosite™, which has remained patent for five months.

The increased flow from the existing forearm A-V fistula in this patient had developed the cephalic vein to a size sufficient to allow immediate placement of the Hemosite™. A forearm site was avoided. Inadequate tissue support and excessive rotational movement inherent in the forearm predisposes to venous fibrosis and thrombosis or skin erosion with subsequent infection. In our experience only two patients have had a forearm placement and both required early removal because of thrombosis and infection.

At present, the optimum site of implantation of a graftless Hemosite™ is the nondominant upper extremity, utilizing the cephalic or brachial vein. Placement of the device into the dominant venous outflow of the feeding A-V fistula is essential to ensure both immediate and long-term patency. If major collaterals are available for flow proximal to the device, then preferential flow will proceed through these collaterals and early thrombosis of the Hemosite™ is likely to occur. Three patients in this current series have had multiple venous outflow channels leading from the feeding fistula and all have developed thrombosis.

Patient #2: This patient was a 74-year-old man with recently diagnosed ESRD that was thought to be secondary to hypertensive nephrosclerosis. Initial attempts at emergency peritoneal dialysis were unsuccessful and immediate vascular access was needed for successful hemodialysis. Under general anesthesia a grafted Hemosite™ was positioned in his nondominant upper arm between the brachial artery and the axillary vein. Dialysis was instituted through the device on the first postoperative day and has continued successfully for the ensuing seven months.

Two distinct problems precluded construction of a standard Ceminio A-V fistula in this patient. Iatrogenic loss of forearm veins made it impractical to construct a simple A-V fistula and such an access procedure would not allow immediate usage. Placement of the grafted Hemosite™ in the upper arm allowed immediate

access and there was no question that a venous anastomosis could be performed. In our experience, the axillary vein is invariably patent and accessible for run-off of the grafted device, if it has not been previously utilized for other graft access procedures. The upper arm site tends to be protected from external trauma and it is easier to keep clean.

Patient #3: This 68-year-old man had been maintained on hemodialysis for three years. Multiple vascular access and intra-abdominal procedures had resulted in the loss of all upper extremity access sites. His present access site, a loop bovine artery graft in the forearm, had undergone thrombectomy and revision on two occasions and he presented with a three-day history of recurrent thrombosis of this graft. An initial attempt at thrombectomy was unsuccessful and on-table arteriography showed multiple stenotic lesions in the venous outflow tract and along the graft itself. A loop grafted Hemosite™ was placed in the left groin between the superficial femoral artery and the saphenous vein. Subsequent dialysis was begun six hours following this procedure and has continued without interruption for the ensuing nine months.

The grafted Hemosite™ offered this patient several advantages. Immediate access was afforded and no other temporary dialysis method was needed. It is hoped that subsequent stenosis and/or aneurysms forming from repeated needle cannulation in a standard interposition A-V graft will be avoided, and that long-term patency will be achieved with the Hemosite™ placed in a patient who had few, if any, alternative sites for vascular access. Certainly, patient discomfort with cannulation has been eliminated.

Although high blood flow rates and, thus, long-term patency can be assured with a grafted Hemosite™ placed between the superficial femoral artery and the saphenous vein, such placement has only been used as a last resort in our patients. Most graft procedures or external foreign bodies placed in the groin have an unacceptable complication rate due to infection. Because of the inherent cleanliness problem in the groin, a fear of excessive flow rates with the development of cardiac failure, and considerations of patients' modesty, we have used this placement sparingly. To date, we have used the groin placement in five patients who are surprisingly free of infection and who are patent nine to 13 months after implantation.

Discussion

There have been numerous advances in the care of the ESRD patient in the past 15 years. Until recently, vascular access has been attained by either the arteriovenous fistula or some variation of an interposition graft procedure. The Hemasite™ vascular access system offers several tangible advantages over more standard access procedures. Urgent yet permanent reliable access to rapid blood flow needed for hemodialysis can be obtained with one operative procedure. Atraumatic access is provided, thus eliminating the formation of aneurysms and stenoses caused by repeated percutaneous cannulations. Patient acceptance and cooperation are excellent with this system because the cannulation procedure is simple and painless. Successful home dialysis becomes a realistic attainable goal for many patients.

The initial experience with this device at the University of Louisville indicates that an acceptable incidence of thrombosis or infection can be achieved if the system is positioned properly and if cleanliness is stressed both to the patient and to the dialysis team.

Twenty-one grafted and 29 graftless Hemasites™ were placed in various access positions over a 14-month period (Table 1). The minimal follow-up period on all patients has been three months. Five of the graft devices have been removed. Infection of the velour cuff with chronic purulent drainage from around the body of the device necessitated removal of the device in four patients. In the other patient, the device was removed early in the postoperative period because of recurrent thrombosis that occurred, apparently secondary to inadequate venous outflow from the graft. Overall, there is currently a 76% patency rate for the graft device. Surprisingly, all five of the grafts placed in the groin region are functional and free of infections.

The overall patency rate of 69% associated with the graftless device is less than that shown for the grafted device. However, the majority of failures occurred for two specific reasons. In our experience, a forearm placement of a graftless Hemasite™ assures an early failure, probably due to the rotational effect inherent in pronation of the forearm and inadequate subcutaneous tissue necessary to fix the device. Only 50% of those graftless devices placed into an existing Gore-Tex™ or bovine A-V fistula are still functional, and all three of these were removed because of infection and bleeding from around the body of the device with a resultant mycotic aneurysm. When placed in this po-

TABLE 1. Various Positions of Hemasite™ Implantable Access Systems

Graft Hemasite	Number	Removed	% Patency
Upper Arm Position	16	5	69%
Groin Position	5	0	100%
Total	21	5	76%
<u>Graftless Hemasite</u>			
Upper Arm Vein Position	21	4	81%
Forearm Vein Position	2	2	0%
Existing Graft	6	3	50%
Total	29	9	69%

sition, an adequate amount of the velour cuff is not exposed to the subcutaneous tissue and there is less fixation of the device than in other placements. This lack of support ultimately leads to movement, infection and false aneurysm formation at the exit site from the graft. Placement of the Hemasite™ into existing grafts or in the forearm should be avoided.

Twenty-one graftless Hemasites™ were placed in the upper arm venous outflow of an A-V fistula. Three of these thrombosed at three to five months following placement through other venous channels around the device. Placement of the device into the dominant venous outflow at a site close to the arterial inflow of the fistula is essential to ensure immediate and long-term patency. If collaterals are available proximal to the device, the preferential flow will develop and proceed through these vessels and early thrombosis of the Hemasite™ can be anticipated. One additional device in this group has been removed electively six months following a successful kidney transplant. Thus, 85% (17 of 20) of the graftless Hemasites™ placed into an upper arm vein are functional.

Conclusion

The Hemasite™ implantable vascular access system appears to be an advance in the care of patients with ESRD. Currently, acceptable early patency rates are being obtained with the device at the University of Louisville. Improvement in these results can be expected when certain placement areas are avoided. Physicians who contend with problems of vascular access should continue to evaluate the Hemasite™ device.

References 1. Quinton W, Dillard D, Scribner BH: Cannulation of blood vessels for prolonged hemodialysis. *Trans Am Soc Artif Intern Organs* 6:110-113. 1960. 2. Brescia MJ, Cimino JE, Appel K, Harwich BJ: Chronic hemodialysis using venapuncture and a surgically created arteriovenous fistula. *N Engl J Med*

275:1089-1092, 1966. 3. Giacchino JL, Gus WP, Buckingham JM, et al: Vascular access: long-term results, new technique. *Arch Surg* 114:403-409, 1979. 4. Harmov M, Baex A, Neff M, et al: Complications of arteriovenous fistulas for hemodialysis. *Arch Surg* 110:708-712, 1975. 5. Burbridge GE, Biggers JA, Remmers AR, et al: Late complications and results of bovine xenografts. *Trans Amer Soc Artif Organs* 22:377-380, 1976. 6. Collins AJ, Shapiro FL, Keshaviak PR, et al: Blood access without skin puncture. *Trans Am Soc Artif Organs* 27:308-312, 1981.

From the Surgical Service, Veterans Administration Medical Center, 800 Zorn Avenue, Louisville, Kentucky 40202, and the Departments of Surgery and Medicine (Nephrology Section), University of Louisville School of Medicine, Louisville, Kentucky 40292.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Coagulopathy Associated with Broad Spectrum Antibiotic Therapy

ANTHONY W. LEE, M.D., WARREN H. PROUDFOOT, M.D.
AND WARD O. GRIFFEN, JR., M.D., PH.D.

A case of coagulopathy and a summary of three other cases associated with broad spectrum and combination antibiotic therapy are being presented. The literature is briefly surveyed and the possible mechanisms and recommendations are discussed.

In the last few years, there have been several reports of coagulopathy associated with broad spectrum antibiotic therapy.^{1,3,4,7} A review of the literature showed that the following antibiotics have been implicated: Ampicillin, Carbenicillin, Gentamicin, Cefamandole, Moxalactam, and possibly Cefoxitin and Cefoperazone alone or in combination.³ The most common bleeding problems reported include: epistaxis, rectal bleeding, and upper gastrointestinal bleeding.⁴

During clinical trials with Moxalactam, hypoprothrombinemic bleeding diathesis was noted in 1%.¹ At one of our institutions, this incidence is 24% and includes such problems as retroperitoneal hematoma and hemoptysis.²

Case Report

An 86-year-old male was admitted through the emergency department with right upper quadrant pain. Past medical history was significant for congestive heart failure and renal insufficiency. The only medication was Digoxin, 0.125 mg p.o. every other day.

On physical examination he had a mildly distended abdomen with marked tenderness in the right upper quadrant and a positive Murphy's sign. No masses were palpated. Bowel sounds were reported to be hypoactive.

Laboratory examination showed the following: WBC = 18,900 with 24 bands, Hematocrit = 39.5%, Platelets = adequate, Serum Potassium = 4.4 mm/L, BUN = 53 mg/dL, and Serum Creatinine = 2.2 mg/dL. Alkaline Phosphatase, SGOT, Total Bilirubin, and Amylase were all within normal limits.

He was admitted with the diagnosis of acute cholecystitis and started on Cefamandole, 1 gm intravenously, (IV), every six hours. His pain did not resolve. Therefore he underwent celiotomy which disclosed a necrotic gallbladder with abscess formation. Cholecystectomy with adequate drainage was accomplished.

Post-operatively, he was on the following antibiotics: Cefamandole, 1 gm IV every eight hours, Clindamycin, 300 mg IV every six hours, and he received one dose of Gentamicin, 80 mg IV. Cultures from the gallbladder showed moderate growth of *Escherichia coli* and *Klebsiella pneumoniae* sensitive to the antibiotics given. No anaerobes were isolated. His course was complicated by wound dehiscence which required operative closure with retention sutures. On the eighth post-operative day, he was noted to have a right flank hematoma. The following laboratory studies were reported: PT = 38.4 (patient)/29.9 (control); Hematocrit = 27%. In the next few days, CT scan showed a retroperitoneal hematoma. Antibiotics were discontinued. He was treated with Aquamephyton 10 mg intramuscularly and was started on 5 mg of oral vitamin K twice a day. Over the course of the week he received four units of packed red cells. His hematocrit remained stable and coagulation studies had returned to: PT = 12.4 (patient)/12.7 (control) prior to his discharge. He was discharged on the 17th post-operative day with instructions to take vitamin K, 5 mg p.o. b.i.d.

A summary of the four cases recently seen on the General Surgical Service at one of our institutions is presented. (Table I)

Discussion

The mechanism of this coagulopathy is believed to be vitamin K deficiency. This can be secondary to malabsorption syndromes, liver disease, aspirin overdose, dietary insufficiency, and heavy alcohol use.⁵ In patients with renal insufficiency, prothrombin levels may be low, therefore, coagulation abnormalities are more

TABLE 1. Summary of Four Cases at SMC

Diagnosis	Operations	Antibiotics	Coag. Studies	Clin. Sig. Bleeding	Treatment	End Result
1) Acute Gangrenous Cholecystitis	Cholecystectomy	Cefamandole, Gentamicin, Clindamycin	↑ PT ↑ PTT (POD # 8)	Right Flank Hematoma	1) Vit. K 2) D/C Antibiotics 3) Transfusion	PT = nl. on discharge; Clinically improved
2) Acute Perforated Appendicitis	Appendectomy	Cefamandole, Gentamicin, Clindamycin, Moxalactam	↑ PT (POD # 2)	None	1) Vit. K 2) D/C Antibiotics	PT = nl. on discharge
3) GSW to Abdomen with small bowel perforation	Resection distal ileum Closure of perforations in small bowel	Cefamandole, Gentamicin, Clindamycin	↑ PT (POD # 11)	Retroperitoneal Hematoma	1) Vit. K 2) D/C Antibiotics	PT = nl. on discharge Clinically improved
4) Sigmoid Volvulus with perforation and gangrenous colon; Parkinson's disease	Transverse loop Colostomy, Sigmoid resection	Cefamandole, Gentamicin, Clindamycin, Moxalactam	↑ PT (POD # 2)	None	1) Vit. K	Death respiratory failure

common.³ These broad spectrum antibiotics, particularly second and third generation Cephalosporins (*ie*, Cefamandole, Moxalactam, Cefoperazone, and Cefoxitin), are excreted in high concentrations in the bile and could reach the gut lumen and alter bowel flora.^{3,5} By suppressing the vitamin K producing gut microflora, they accelerate the decline in the body stores of vitamin K.⁵ At present, there is no evidence that these antibiotics interfere with the hepatic production of vitamin K dependent clotting factors.⁴

The question of interference with platelet aggregation has also been raised. In vitro studies have shown that Cephalosporins can cause platelet dysfunction by interfering with Adenosine Diphosphate induced aggregation.⁶ This can cause a prolongation of the bleeding time. There have been reports of this phenomena with the use of Moxalactam and Carbenicillin.¹ The bleeding diathesis have been shown to be reversible upon discontinuation of the drug.¹

For clinicians confronted with such a problem, the following recommendations are in order: 1) Debilitated and compromised patients should receive prophylactic vitamin K prior to antibiotic therapy.⁵ 2) Coagulopathy associated with the use of these antibiotics can usually be reversed by prompt vitamin K administration.⁵ 3) Patients on both prophylactic low dose heparin and broad spectrum antibiotics should receive prophylactic vitamin K. 4) Routine baseline coagulation profile before starting antibiotics and frequent coagulation studies should be done. 5) Immediate discontinuation of the suspected antibiotic if coagulopathy occurs.

Summary

Coagulopathies associated with the use of broad spectrum antibiotics are being reported more often. Although most cases are reversible with immediate discontinuation of the drug and vitamin K administration, at least one fatal gastrointestinal bleeding episode has been reported.⁷

Coagulation studies are indicated. Vitamin K is safe and inexpensive and should be given to avoid this potentially hazardous complication.³

References 1. Weitekamp MR, Aber RC: Prolonged Bleeding Times and Bleeding Diathesis Associated with Moxalactam Administration, *JAMA* 249:69-71, 1983. 2. Moxalactam Drug Utilization Review, St. Claire Medical Center, Morehead, Kentucky. 3. Reddy J, and Bailey RR: Vitamin K Deficiency Developing in Patients with Renal Failure Treated with Cephalosporin Antibiotics, *NZ Med J*, 92:378-380, 1980. 4. Pineo GF, *et al*: Unexpected Vitamin K Deficiency in Hospitalized Patients, *Can Med Assoc J*, 109:880-883, 1973. 5. Pakter RL, *et al*: Coagulopathy Associated with the Use of Moxalactam, *JAMA*, 248:1100, 1982. 6. Cazenare JP, *et al*: Effects of Cephalothin and Penicillin G on Platelet Function in Vitro, *Br J Hematol*, 35:135-152, 1977. 7. Hooper CA, *et al*: Gastrointestinal Bleeding Due to Vitamin K Deficiency in Patients on Parenteral Cefamandole, *Lancet*, 1:39-40, 1980.

From the Department of Surgery, St. Claire Medical Center, Morehead, Kentucky, 40351 and the Department of Surgery, Albert B. Chandler Medical Center, University of Kentucky, Lexington, Kentucky, 40536.

Reprint requests: Warren H. Proudfoot, M.D. Department of Surgery St. Claire Medical Center Morehead, KY 40351

Repair of Aortic Root Aneurysms With Associated Aortic Valve Insufficiency

ROY BOWLING, M.D., CONSTANTINE MAVROUDIS, M.D., LAMAN A. GRAY, JR., M.D.
AND W. ROBIN HOWE, M.D.

From 1973, four patients at the University of Louisville Medical Center have undergone five repairs of aortic root aneurysm associated with aortic insufficiency. There were three men and one woman aged 26 to 60 years. Aneurysmal disease was due to atherosclerosis and cystic medial degeneration. All showed left ventricular enlargement, aortic insufficiency and aneurysmal dilatation of the ascending aorta and aortic root. Presenting symptoms were chest pain, fatigue, palpitations, shortness of breath and lightheadedness. Three patients had prosthetic aortic valve replacement and ascending aortic dacron graft placement between the innominate artery and the coronary ostia. One of these patients was reoperated due to a clotted Bjork-Shiley valve and aneurysmal dilatation of the sinus of Valsalva. The repair consisted of a composite porcine valve—dacron graft and reimplantation of the coronary arteries to the dacron graft. Closure of the old aneurysm over the graft ensured hemostasis. The fourth patient had primary repair with a composite porcine valve—dacron graft and reimplantation of the coronary arteries to the dacron graft. Closure of the old aneurysm over the graft ensured hemostasis. The fourth patient had primary repair with a composite porcine valve—dacron graft and reimplantation of the coronary arteries. There were no operative deaths. Aortic cross-clamp time was between 57 minutes and 195 minutes, being shorter with the two composite valve-graft procedures in which cardioplegia was used. Postoperative complications consisted of severe bleeding, atrial fibrillation, inferior myocardial infarction, complete heart block and pneumonia. Treatment of aortic

insufficiency and ascending aortic root aneurysms can safely be accomplished with composite porcine valve grafts and reimplantation of the coronary arteries. In the long term, this treatment will avoid later development of sinus of Valsalva aneurysms.

Surgical repair of ascending aortic aneurysms associated with aortic insufficiency has been an ongoing challenge to cardiovascular surgeons. Refinements in cardiopulmonary bypass, myocardial preservation, prosthetic heart valves and vascular grafts have reduced operative mortality.¹⁻⁶ Most authors consider composite replacement of the aortic valve and ascending aorta with re-implantation of the coronary ostia the preferred treatment since all the diseased aorta is excluded from the circulation.^{1,2,4} The purpose of this paper is to review the surgical treatment of four patients with aortic insufficiency and ascending aortic aneurysms and to emphasize the benefits of complete repair using composite valve grafts and re-implantation of the coronary arteries.

Materials and Methods

From 1973 to 1982, four patients at the University of Louisville Medical Center have undergone five operations for aortic root aneurysms associated with aortic insufficiency. Ages ranged from 26 to 60 years. There were three men and one woman. Chest pain was the major presenting complaint in all four patients. Other presenting symptoms included fatigue, palpitations, shortness of breath, and lightheadedness. Aneurysmal disease was due to atherosclerosis in three patients and cystic medial degeneration in one patient with known Marfan's syndrome. In all patients, preoperative catheterization showed widened pulse pressure, severe aor-

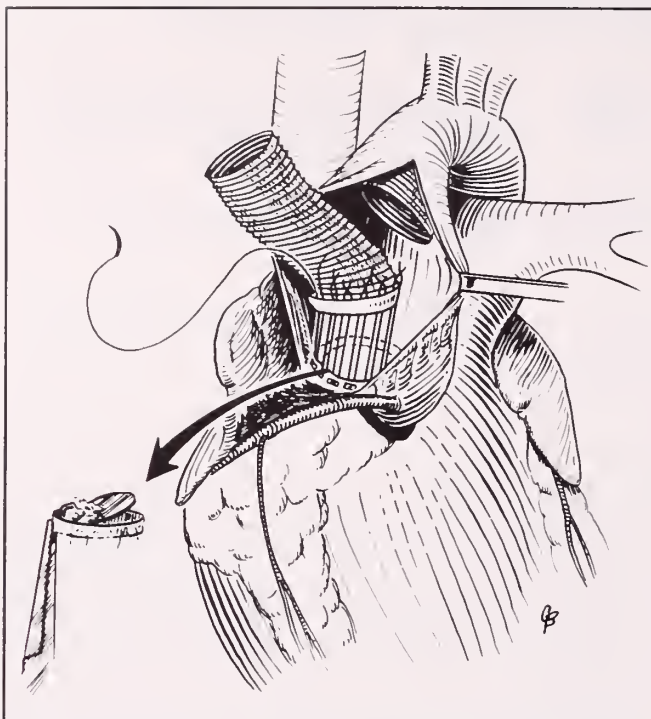


Fig. 1: The thrombosed prosthesis has been removed and the composite valved conduit sewn circumferentially to the aortic annulus with pledgeted sutures.

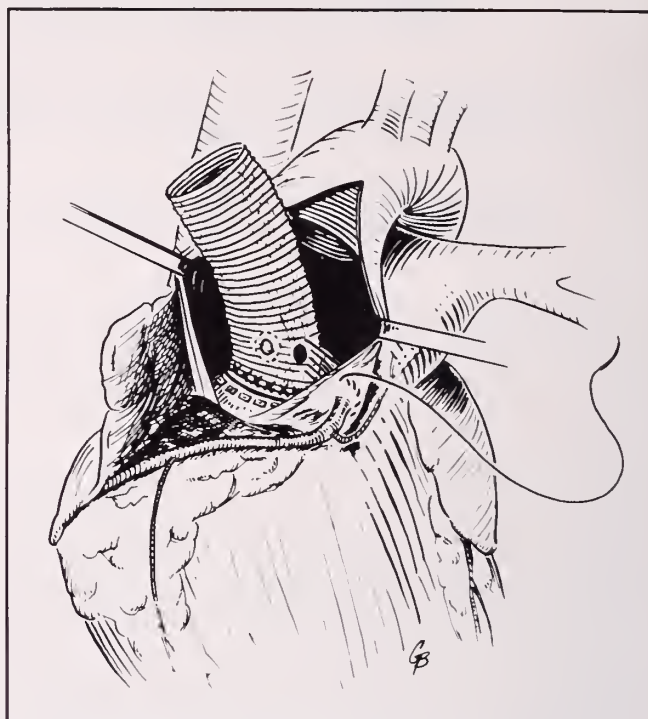


Fig. 2: Side-to-side anastomosis of the coronary ostia to apertures in the graft is shown.

tic insufficiency, and aneurysmal dilatation of the ascending aorta beginning at the aortic annulus. Aortogram in the patient with Marfan's syndrome also demonstrated an intimal flap in the proximal aneurysm with a dissecting channel extending to the aortic arch. Two different techniques for repair were utilized with no operative deaths.

Three patients had Bjork-Shiley valve and Dacron woven graft replacement with tongues of diseased aorta at the coronary ostia retained and then sutured to the proximal portion of the Dacron graft after it was tailored to accept them. In each of these cases, systemic cooling and intermittent coronary perfusion from the pump were used for myocardial preservation. The cross-clamp time ranged from 136 to 195 minutes. Bleeding from the proximal suture line was a problem in all three patients, however, none required re-exploration for postoperative bleeding. Early postoperative complications included atrial fibrillation, pneumonia, premature ventricular contractions, and lower extremity thrombophlebitis. One patient with the Marfan syndrome developed thrombosis of the Bjork-Shiley valve and aneurysms of the sinuses of Valsalva five years after his original procedure when he discontinued his Coumadin therapy. At re-operation, 6 cm sinus of Valsalva aneurysms and a clotted

Bjork-Shiley valve were found and repaired with a composite porcine valve-Dacron conduit and re-implantation of the coronary ostia (Figures 1-4). Systemic hypothermia, potassium cardioplegia, and topical myocardial hypothermia were used for myocardial preservation. The cross-clamp time was 86 minutes. The patient is alive and asymptomatic five years after operation. The other two patients are doing well and asymptomatic at follow-up periods of eight and nine years respectively.

The fourth patient of this group, a 60-year-old woman, with aortic insufficiency and ascending aortic aneurysm underwent composite porcine valve-Dacron graft replacement, using systemic cooling, topical iced saline and cold potassium cardioplegia for myocardial preservation. In this manner, the entire diseased ascending aorta was excluded from the circulation and the coronary arteries were re-implanted to the side of the graft. The aneurysmal wall was also sutured over the graft for hemostatic purposes. Cross-clamp time was 57 minutes and there was no significant suture line bleeding. She developed a perioperative inferior wall myocardial infarction which was hemodynamically insignificant. She thereafter had an uneventful postoperative course and is asymptomatic at follow-up period of 18 months.

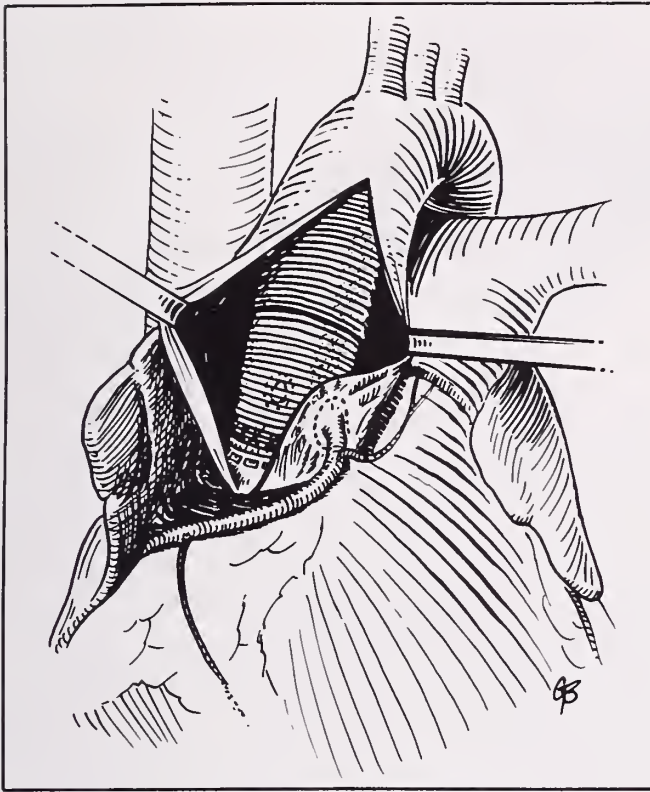


Fig. 3: The distal anastomosis to the ascending aorta is completed. The composite-valve graft and the implanted coronary ostia are now within the old aneurysm.

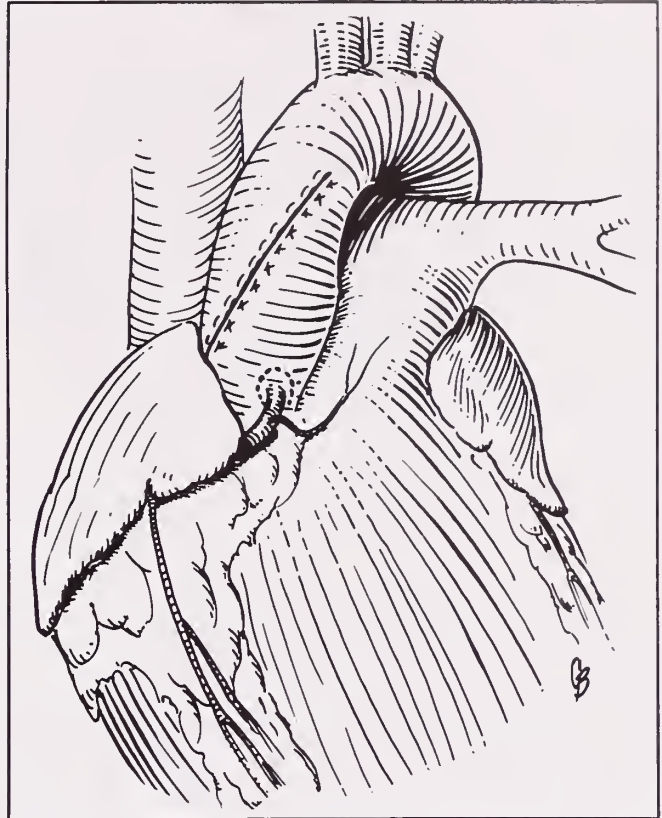


Fig. 4: Closure of the aorta around the completed graft which prevents excessive bleeding.

Discussion

Refinements in extracorporeal circulation, myocardial preservation and new prosthetic material have combined to reduce mortality and morbidity in patients with aortic insufficiency and ascending aortic aneurysms.¹⁻⁴ Management of the coronary ostia has always been the most challenging aspect. Earlier reports stressed minimal manipulation of the coronary ostia by replacing the valve and then anastomosing the graft to a cuff of aorta supraostially.^{7,8} The major complication of this procedure was bleeding from the proximal anastomosis and subsequent development of recurrent aneurysms of the remaining aortic root.^{1,9} McCready and Pluth described five patients out of 65 undergoing this procedure who subsequently developed aortic root aneurysms.¹¹ All five of these patients had cystic medial degeneration and the average time to the development of recurrent aneurysms was 6.5 years. They suggested that recurrent aneurysms may be more common in the patient with cystic medial degeneration as compared to those with atherosclerosis.

In 1964, Wheat and co-workers extended the operation by excising all of the diseased ascending aorta to

the annulus with the exception of small tongues of aorta at the coronary ostia.¹⁰ Although bleeding from the proximal anastomosis was still a problem, long-term follow-up has suggested a decrease in recurrent aneurysms of the aortic root.^{11,12} However, in our series, one out of three patients treated by this technique developed recurrent aneurysms of the sinuses of Valsalva requiring re-operation five years postoperatively.

In 1968, Bentall and DeBono described the use of a composite valve graft with re-implantation of the coronary ostia to the side of the graft.¹³ Subsequent series followed with only slight modifications in this basic technique.¹⁴⁻¹⁷ Proximal suture line hemorrhage and subsequent development of recurrent aortic root aneurysms appear decreased, but pseudoaneurysms of the coronary ostia and distal suture line have been reported.^{1,16} More recent reports have shown a preference for the Bjork-Shiley valve¹⁸⁻²⁰ and bioprosthetic valves^{12,21} over the Starr-Edwards valve because of the former's more central flow characteristics, which theoretically lowers the stress on the aortic anastomoses. Porcine bioprosthetic valves, which have shown good durability

in medium length follow-up studies,^{5,6,22} were used in the two cases in our series.

We report four patients undergoing five repairs of aortic root aneurysms with aortic insufficiency at the University of Louisville Medical Center. Although our series is small, it suggests that composite porcine valve—Dacron graft is superior to prosthetic valve replacement and results in reduced hemorrhage from the proximal anastomosis, by decreasing the cross-clamp time and by eliminating the potential late complication of aneurysmal dilatation of the sinuses of Valsalva.

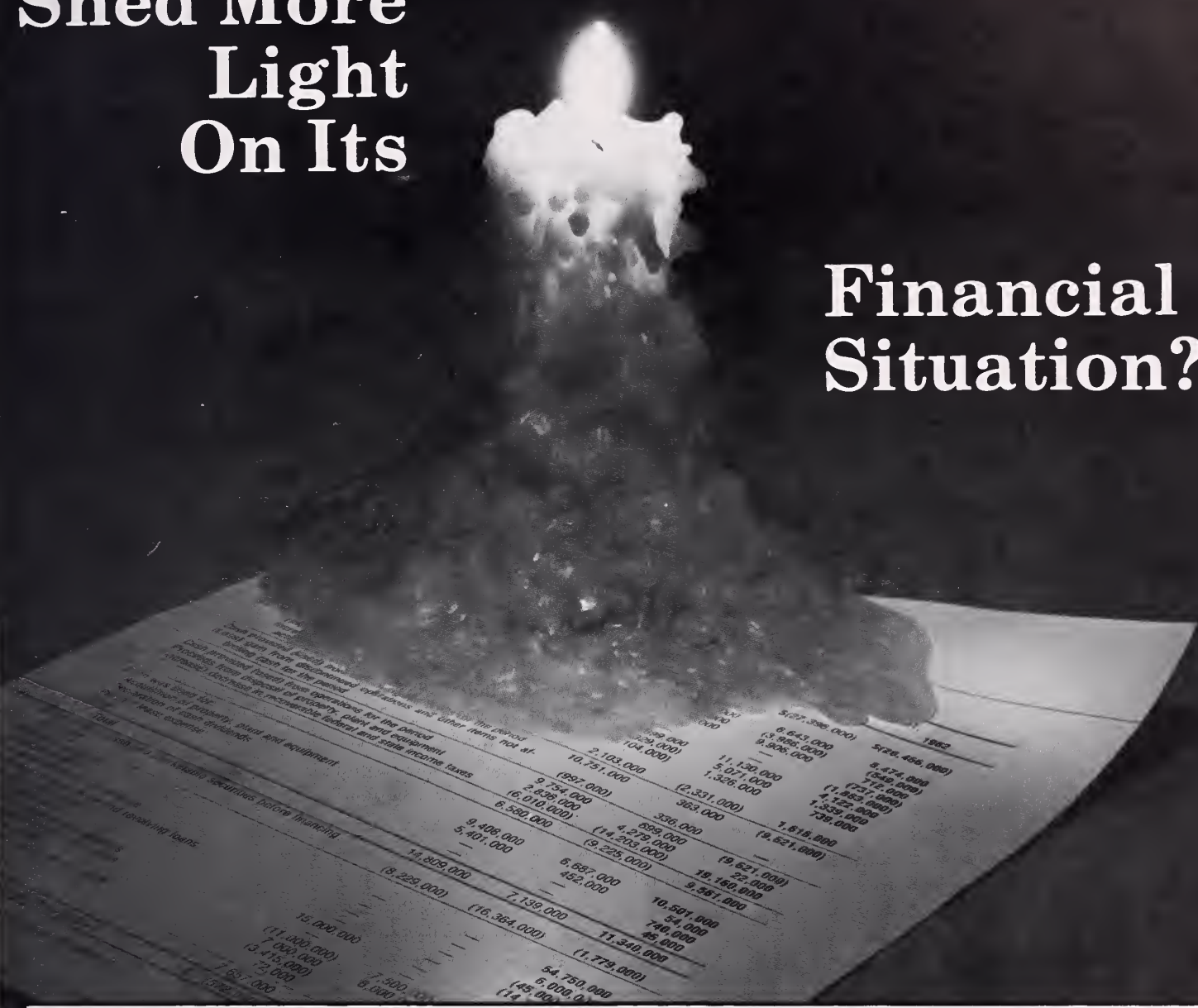
References 1. McCready RA, Pluth JR: Surgical treatment of ascending aortic aneurysm associated with aortic valve insufficiency. *Ann Thor Surg* 28:307–314, 1979 2. Kouchoukos NT, Karp RB, Blackstone EH, Kirklin JW, Pacifico AD, Zorn GL: Replacement of the ascending aorta and aortic valve with a composite graft. *Ann Surg* 192:403–411, 1980. 3. McDonald GR, Schaff HV, Pyeritz RE, McKusick VA, Gott VL: Surgical management of patients with the Marfan syndrome and dilatation of the ascending aorta. *J Thorac Cardiovasc Surg* 81:180–186, 1981. 4. Helseth HK, Haglin JJ, Monson BK, Wickstam PH: Results of composite graft replacement for aortic root aneurysms. *J Thorac Cardiovasc Surg* 80:754–759, 1980. 5. Williams JB, Karp RB, Kirklin JW, Kouchoukos NT, Pacifico AD, Zorn GL, Blackstone EH, Brown RN, Piantadosi S, Bradley EL: Considerations in selection and management of patients undergoing valve replacement with glutaraldehyde-fixed porcine bioprosthesis. *Ann Thor Surg* 30:247–256, 1980. 6. Gallo JT, Ruiz B, Carrion MF, Gutierrez JA, Vega JL, Duran CMG: Heart valve replacement with a Hancock bioprosthesis: A six-year review. *Ann Thor Surg* 31:444–448, 1981. 7. Groves LK, Effler DB, Hawk WA, and Gulati K: Aortic insufficiency secondary to aneurysmal changes in the ascending aorta: Surgical management. *J Thorac Cardiovasc Surg* 48:362–379, 1964. 8. Cooley DA, Bloodwell RD, Beal AC, Hallman GL, DeBakey ME: Surgical management of aneurysms of the ascending aorta. *Surg Clin North Am* 46:1033–1044, 1966. 9. Symbas PN, Raizner AE, Tyras DH, Hatcher CR, Inglesby TV, Baldwin BJ: Aneurysms of all sinus of Valsalva in patients with Marfan's syndrome. *Ann Surg* 174:902–907, 1971. 10. Wheat MW, Wilson JR, Bartley TD: Successful replacement of the entire ascending aorta and aortic valve. *JAMA* 188:717–719, 1964. 11. Wheat MW, Boruchow IB, Ramsey HW: Surgical treatment of aneurysms of the aortic root. *Ann Thorac Surg* 12:593–603, 1971. 12. Miller DC, Stinson EB,

Dyer PE, Moreno-Cabral RJ, Reitz BA, Rossiter SJ, Shumway NE: Concomitant resection of ascending aortic aneurysm and replacement of the aortic valve. *J Thorac Cardiovasc Surg* 79:388–401, 1980. 13. Bentall H, DeBono A: A technique for complete replacement of the ascending aorta. *Thorax* 23:338–339, 1968. 14. Edward WS, Kerr AR: A safer technique for replacement of the entire ascending aorta and aortic valve. *J Thorac Cardiovasc Surg* 59:837–839, 1970. 15. Singh MP, Bentall HH: Complete replacement of the ascending aorta and aortic valve for the treatment of aortic aneurysm. *J Thorac Cardiovasc Surg* 63:218–224, 1972. 16. Crosby IK, Ashcraft WC, Reed WA: Surgery of proximal aorta in Marfan's syndrome. *J Thorac Cardiovasc Surg* 66:75–81, 1973. 17. Zubiate P, Kay JH: Surgical treatment of aneurysm of the ascending aorta with aortic insufficiency and marked displacement of the coronary ostia. *J Thorac Cardiovasc Surg* 71:415–421, 1976. 18. Kouchoukos NT, Karp RB, Lell WA: Replacement of the ascending aorta and aortic valve with a composite graft: Results in 25 patients. *Ann Thor Surg* 24:140–147, 1977. 19. Koizumi S, Mohri H, Kagawa Y, Saji K, Haneda K, Kahata O, Itoh T, Yokoyama A, Ohmi M, Horiuchi T: Surgical treatment of annuloaortic ectasia: Experience in seven consecutive patients. *Ann Thor Surg* 25:425–430, 1978. 20. Mayer JE, Lindsay WG, Wang Y, Jorgensen CR, Nicoloff DM: Composite replacement of the aortic valve and ascending aorta. *J Thorac Cardiovasc Surg* 76:816–821, 1978. 21. Kalil RF, Azambuja PC, Bertoletti VE, Lucchese FA, Prates PR, Nesralla IA: Surgical treatment of annuloaortic ectasia with composite grafts including homologous dura mater valves. *Ann Thor Surg* 26:142–147, 1978. 22. Oyer PE, Stinson EB, Reitz BA, Miller DC, Rossiter SJ, Shumway NE: Long-term evaluation of the porcine xenograft bioprosthesis. *J Thorac Cardiovasc Surg* 78:343–350, 1979.

From the Division of Thoracic and Cardiovascular Surgery, Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky. Reprint requests: Constantine Mavroudis, M.D., Department of Surgery, Ambulatory Care Building, University of Louisville, Louisville, Kentucky 40292.

Shouldn't Your Carrier Shed More Light On Its

Financial Situation?



Many professional liability carriers try to keep their insureds in the dark concerning their financial situation. Not Insurance Corporation of America. ICA's financial stability reflects our long-term commitment to the medical community.

Through sound management, conservative investments, and consistent reinsurance, ICA has grown to become one of the leading writers of professional liability insurance in the nation.

For further information about ICA's enlightened approach to

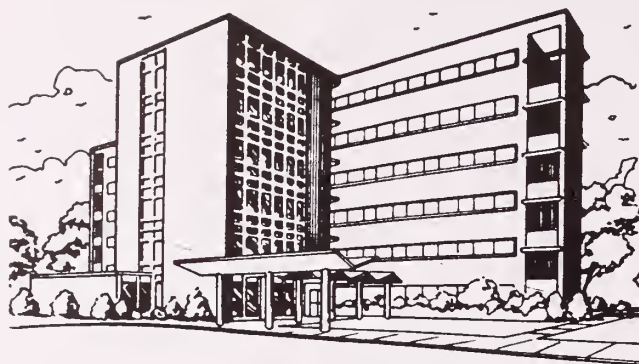
professional liability insurance, please call 1-800-231-2615; in Texas call 1-800-392-9702.



The Preferred Underwriter

Twenty-Ninth Annual Clinical Conference

April 6 & 7, 1984



**1221 S. Broadway
Lexington, Kentucky 40504**

Presented by:

The Lexington Clinic and
The Lexington Clinic Foundation

Program

Friday Morning, April 6

- 8:30 Registration. Coffee and Doughnuts
- 9:00 Welcome—Moderator. Lawrence Maguire, MD
- 9:05 Diagnosis and Therapy of TIA's; Including Amaurosis Fugax, Transient Global Amnesia, and Drop Attacks. Clark Millikan, MD
- 9:50 Progressing Stroke. Daniel Tynan, MD
- 10:15 Break. with Refreshments
- 10:45 Imaging Modalities in Stroke. Guy T. Ellis, MD
- 11:10 Diagnosis and Prognosis of the Completed Stroke—Prevention of the Next Stroke. Clark Millikan, MD
- 11:55 Rehabilitating the Patient with a Completed Stroke. Virginia Garrett, MD
- 12:30 Lunch

Friday Afternoon, April 6

Moderator—Ardis Hoven, M.D.

- 2:00 Advances in the Management of Lumbar Disc Disease—Chemonucleolysis. Leon Ravvin, MD
- 2:25 CT Scanning for the Generalist. Kenneth W. Peat, MD
- 2:50 Impotence—Diagnosis and Management. William Gee, MD
- 3:15 Break, with Refreshments
- 3:30 Managing the Arthritic Patient. Paul M. Goldfarb, MD
- 3:55 Practical Problems in Pediatric Urology. Anthony Casale, MD
- 4:20 Questions and Answers
- 4:30 Adjourn

Friday Evening, April 6

Social Activity—Cocktails and Hors d'oeuvres at Lexington Clinic East

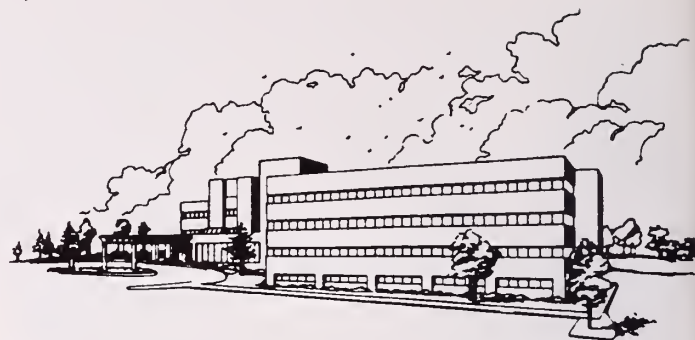
- 6:00 Board Trolleys for Trip to Lexington Clinic East
- 8:00 Board Trolleys for Return Trip to Radisson Plaza Hotel

Saturday Morning, April 7

9:00–11:30

Concurrent Seminar Sessions

1. Improving Patient Care through Effective Practice Management. Administrative Staff.
2. Evaluation and Conditioning Programs for Recreational and Competitive Athletes. W. Ben Kibler, MD, Don Lange, RPT, Mark Dodson, LPT, Lexington Clinic, Al Greene, Head Trainer, and Walt McCombs, Basketball Trainer, University of Kentucky Athletics Department.



**Primary Care Center
100 N. Eagle Creek Drive
Lexington, Kentucky 40509**

3. Diagnosis and Management of Diabetes Mellitus. Thomas J. Goodenow, MD, L. Raymond Reynolds, MD, Mary Gaskins, RD, and Wilma Stagner, RN. Endocrinology Section.

Saturday Afternoon, April 7

Social Activity—Optional.

Keeneland Trip, with lunch, reserved seating, and transportation provided.

12:00 Board Buses for Keeneland.

4:00–5:00 Board Buses for return trip to Radisson Plaza Hotel.

All Scientific Sessions held at Radisson Plaza Hotel, Lexington. Cocktail Party Friday Evening, April 6, at Lexington Clinic East. Optional Trip to Keeneland, with reserved seating, Saturday afternoon, April 7.

Guest Speakers:

Clark Millikan, MD
Professor of Neurology
University of Utah School of Medicine
Salt Lake City, Utah

Virginia Garrett, MD
Director of Brain Injury Unit
Cardinal Hill Hospital
Lexington, KY

As an organization accredited for continuing medical education, the Lexington Clinic certifies that this continuing medical education activity meets the criteria for 8 credit hours in Category 1 toward the Physician's Recognition Award of the American Medical Association or similar credit.

This conference has been approved 8 hours of prescribed credit by the American Academy of Family Physicians.

Conference Registration fee: \$50.00
Optional Keeneland Trip \$20.00 per person.

Please send Inquiries to: Suzanne Compton, MS, Coordinator, Education and Research, The Lexington Clinic, 1221 S. Broadway, Lexington, Kentucky 40504

EDITORIAL

Editorial Cooperation

Recent changes in the financial structure of medicine make it imperative that we cooperate. We must cooperate with the hospitals as they interpret their role and manage their resources. Concise and adequate admissions should be good for patient, doctor and the hospital. Drug choices are not inappropriately influenced by cost comparison. Radiologic expertise is enjoyed by us, but overuse wastes resources. As administrators become sensitive to the economy of medicine, should we not counsel them about judicious application of organization.

We must cooperate with governments and their attendant bureaucracy. Dissecting away titles and ancil-

lary people, the people behind the desks or at the helm are not all alien. They have families whose health care must be arranged and whose own care is of some interest. Using even this base, we can give input to effect changes in a positive way.

We must cooperate with our patients. No longer do many have the mantle of free health care, nor are they immune from burdens of taxation. Their time in the job market is more measured and their medical problems with drugs, appointments and suitability for employment are very focused.

We must cooperate with the medical world.

Stephen Z. Smith, M.D.

1984 CME Cruise/Conferences on Legal-Medical Issues



APPROVED FOR
18-24 CME CREDITS
CATEGORY 1
By the Suffolk Academy
of Medicine

The programs listed below were scheduled prior to 12/31/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act, P.L. 94-445, effective 1/1/77, with the exception of the Hawaiian Conference, which conforms to the requirements of P.L. 97-424.

- January 7-18 (from Ft. Lauderdale, FL)
11 Day Caribbean
- April 14-21 (from Los Angeles, CA)
7 Day Mexican Riviera
- May 19-26 (from Honolulu, HI)
7 Day Hawaiian
- June 30-July 14 (from San Francisco, CA)
14 Day Alaskan
- July 25-Aug. 4 (from Ft. Lauderdale, FL)
10 Day Caribbean
- Aug. 11-25 (from Venice, Italy)
14 Day Mediterranean

* FLY ROUNDTRIP FREE
EXCELLENT GROUP FARES — FINEST SHIPS

The number of participants in each conference is limited
Early registration is advised

For color brochure
and additional
information contact:
International Conferences
189 Lodge Ave.
Huntington Station, N.Y. 11746
Phone (516) 549-0869

General Leasing
Company of Kentucky

Professional Transportation Management

We administer your
physician's lease plan.

We lease all makes —
everywhere.

GENERAL LEASING

121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383

References:

1. Stone PH, Turin ZG, Muller JE. Efficacy of nifedipine therapy for refractory angina pectoris. *Am Heart J* 104:672-681, September 1982.
2. Antman E, Muller J, Goldberg S, et al. Nifedipine therapy for coronary-artery spasm: Experience in 127 patients. *N Engl J Med* 302:1269-1273, June 5, 1980.

BRIEF SUMMARY

PROCARDIA® (nifedipine) CAPSULES

For Oral Use

INDICATIONS AND USAGE: I. **Vasospastic Angina:** PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. **Chronic Stable Angina (Classical Effort-Associated Angina):** PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA

WARNINGS: Excessive Hypotension: Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out. In PROCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and, if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PROCARDIA to be washed out of the body prior to surgery.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients, usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug interactions: Beta-adrenergic blocking agents. (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates. PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.

Digitalis. Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility. When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy. Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianalgesic medication. Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request

© 1982, Pfizer Inc.



LABORATORIES DIVISION
PFIZER INC.

*"I can do things that I
couldn't do for 3 yrs. including
joining the human race again."*



*"My daily routine consisted of
sitting in my chair trying to stay alive."*

*"My doctor switched me to
PROCARDIA[*] as soon as it became
available. The change in my condition
is remarkable."*

*"I shop, cook and can plant
flowers again."*

*"I have been able to do volunteer
work...and feel needed and useful
once again."*

PROCARDIA can mean the return to a more normal life for your patients—having fewer anginal attacks,¹ taking fewer nitroglycerin tablets,² doing more, and being more productive once again.

Side effects are usually mild (most frequently reported are dizziness or lightheadedness, peripheral edema, nausea, weakness, headache and flushing, each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%).



Quotes from an unsolicited
letter received by Pfizer from an
angina patient
While this patient's experience
is representative of many
unsolicited comments received,
not all patients will respond to
Procordia nor will they all
respond to the same degree.

© 1983, Pfizer Inc.

for the varied faces of angina

PROCARDIA[®]
(NIFEDIPINE) Capsules 10 mg

*Procordia is indicated for the management of:

- 1) Confirmed vasospastic angina.
- 2) Angina where the clinical presentation suggests a possible vasospastic component.
- 3) Chronic stable angina without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or nitrates or who cannot tolerate these agents. In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks' duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Please see PROCARDIA brief summary on adjoining page.

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

Upjohn



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

**Endorsed by the
Kentucky Medical Association**

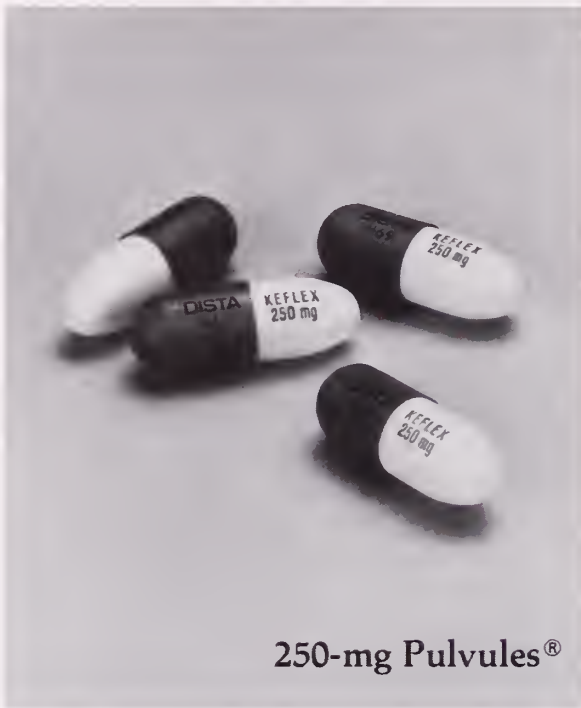


AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

easy to take



Keflex®
cephalexin

Additional information available
to the profession on request.



Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Kentucky
Medical Management &
Computer Operations

KMCO

A subsidiary of KMA Physicians Services, Inc.

For the physician's office

"Tomorrow's Technology is Here Today"

Created exclusively to deal with the specialized needs of the physician's office, KMCO is ready to answer your questions on all phases of practice management and computer technology. We know a more efficient practice is the key to more efficient patient care.

For Additional Information Call Us At:
Louisville Area 451-2095 or 1-800-291-1675
or mail this coupon

Send me further information on

- ☐ Computer Services
- ☐ Consultation
- ☐ Practice Management Workshops

Name _____

Address _____

City _____ State, Zip _____

Telephone _____

Mail to: KMCO
3532 Ephraim McDowell Dr.
Louisville, KY 40205

A special practice for specialists

If you're a surgeon or OB/GYN or other medical specialist, the Air Force may have a special practice for you.

What makes it special? You'll enjoy an excellent pay and benefits package. Your regular working hours will allow you to spend more time with your family. You'll receive 30 days of vacation with pay each year. And you will work with modern equipment and some of the most highly trained professionals in the world, serving your country and your patients. Now that's special!

**Find out just how special
your practice can be.**

Contact:

TSGT PETE HONAKER
701 W. Muhammed Ali Blvd.
Louisville, KY 40203
Call 502-582-5727 Collect

Highlights of AMA Interim Meeting

The Interim meeting of the AMA House of Delegates met in Los Angeles December 4-7, 1983, to consider numerous reports and resolutions. For your information we are listing several highlights of the House deliberations which may be of interest to members of the KMA.

Joint Commission on Accreditation of Hospitals (Resolutions 45 and 77)

JCAH medical staff provisions continued to dominate the discussion at the House of Delegates.

Two broad issues under consideration were:

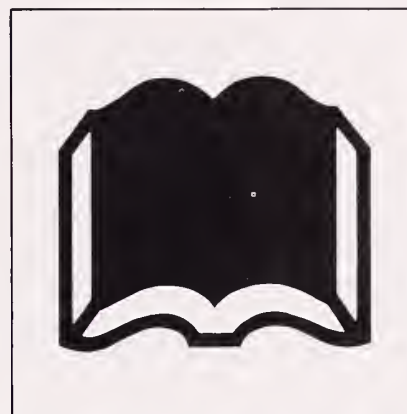
1. Physician responsibility for patients admitted to hospitals by limited licensed practitioners.
2. The ability of the individual hospital and medical staff to determine which categories of limited licensed practitioners may be considered for medical staff membership.

After lengthy debate on the serious legal and patient care implications involved with these issues, the House adopted the following policy statement:

- That it be the policy of the American Medical Association that the hospital medical staff may grant admitting privileges to appropriately credentialed limited licensed practitioners in accordance with state law and **in accordance with the criteria for standards of medical care established by the individual hospital medical staff.**
- That it be the policy of the American Medical Association that hospital admitting privileges be granted in accordance with state law and in accordance with criteria for standards of medical care established by the individual hospital medical staff.

The Insanity Defense in Criminal Trials and Limitations of Psychiatric Testimony (B of T Report G and Substitute Resolution 75)

The House adopted a report of the Board pertaining to insanity as a defense which received generally favorable attention among members of the news media. The report called for a narrowing of the use of the insanity defense in criminal trials.



The American Bar Association and the American Psychiatric Association expressed opposition to the report which concluded that the insanity defense:

"Has outlived its principal utility, it invited continuing expansion and corresponding abuse, it requires juries to decide cases on the basis of criteria that defy intelligent resolution in the adversary forum of the courtroom, and it impedes efforts to provide needed treatment to mentally ill offenders."

The Reference Committee concluded that the position recommended by the Board is:

- Rational and thorough in all aspects.
- Will decrease the time and costs involved in criminal trials.
- Will provide greater opportunity for appropriate treatment of the mentally ill.

The House also called upon the AMA Board to continue collaborative efforts with the ABA and APA to achieve a common policy position concerning the insanity defense.

Indemnity Versus UCR (CMS Report B)

The House amended then approved a major report regarding physician reimbursement by means of indemnity versus UCR. This issue was first introduced at the 1983 Annual Meeting and the House called for further indepth study of the positive aspects of indemnity schedules.

In amending the report, the House reaffirmed Association policy supporting:

- Freedom for physicians to choose the method of payment for their services and to establish fair and equitable fees.
- Freedom of patients to select their source of care.
- Neutral public policy and fair market competition among alternative health care delivery and financing systems.

Another report is anticipated for the 1984 Annual Meeting.

Balance Billing (Resolution 128)

In a related action the House voted to:

“Support the right of the physician to balance bill a patient for any care given, regardless of method of payment where permissible by law or contractual agreement.”

DRG Based Prospective Payment (CMS Report J, Resolution 70, 71)

The House filed a status report on regulations implementing the Prospective Payment System for Hospitals. In a related action, the House voted to:

- Endorse the concept that any system for reimbursement for physicians' services be independent of reimbursement systems for other providers of health care.
- Continue to oppose expansion of prospective systems until such time as they have been adequately evaluated with respect to their impact on the quality, cost, and access to medical care.

Confidentiality in the Physician/Patient Relationship (J. C. Report B)

The House approved another report of the Judicial Council pertaining to confidentiality between a physician and patient.

The report states that “The Physician should not reveal confidential communications or information without the express consent of the patient, unless required to do so by law.” Exceptions are:

- When a patient threatens to inflict serious bodily harm on another person.
- Communicable diseases, gunshot and knife wounds should be reported as required by applicable statutes or ordinances.

While not mentioned in the report, the Chairman of the Judicial Council stated that incidences of child abuse and abuse of the elderly should also be reported to appropriate authorities.

Sale of Human Organs (Resolutions 16, 61, 78, 87)

The House voted to:

- Oppose the sale of non-renewable, transplantable organs for the purpose of profit.
- Continue to monitor the legislation now being considered in Congress on this subject.

Care of Handicapped Newborns (Resolutions 23, 80, 86)

The House voted to:

- Continue to oppose regulations or legislation which would impose a federal role in the decision-making about the care of severely ill newborns.

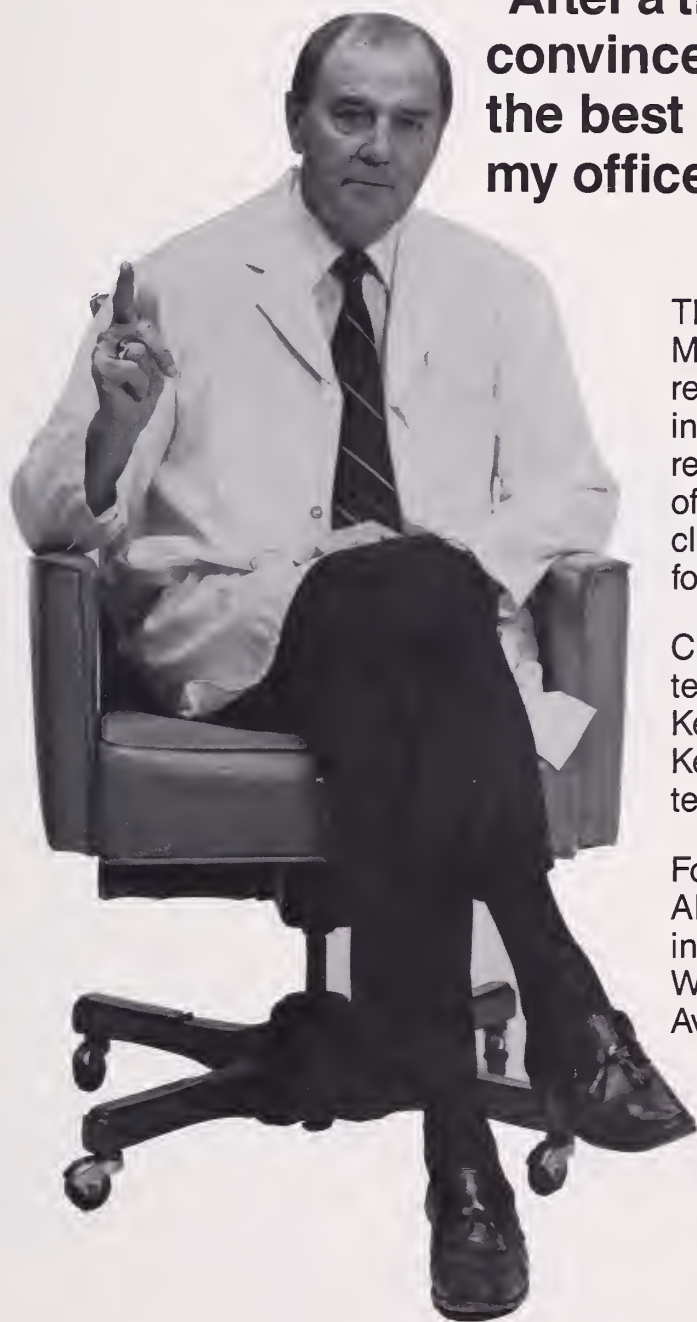
Scientific Accuracy in Racial, Ethnic, and Religious Designations in Medical Records (Resolution 4)

The House voted to:

- Advocate precision in racial, ethnic, and religious designations in medical records with information obtained from the patient always respecting the personal privacy of the patient.

“Now that I can get Clinic-Manager™ software on the IBM PC-XT for \$13,950 or \$16,950 including installation and training, I’m ready to buy a computer system.”

“After a thorough investigation, I’m convinced that Clinic-Manager™ is the best software for managing all my office functions.”



The office functions included in the Clinic-Manager™ software system are: accounts receivable, collections, appointment scheduling, checkout routine, statistics and medical records as well as the automated preparation of patient statements, insurance (forms including electronic transfer) and encounter forms (super bills).

Clinic-Manager™ is authored by EDP Systems, Inc., and distributed exclusively in Kentucky by Clinic Manager Systems, a Kentucky Corporation with a staff of 12 technical and marketing professionals.

For more information call Douglas Weidner, Al Earley or Jim Augustus at 502/426-5870 in Louisville. Or write us at 703 Cadogan Way, Louisville, KY 40222 or 1100 Walnut Ave., Owensboro, KY 42301.



CLINIC MANAGER SYSTEMS

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

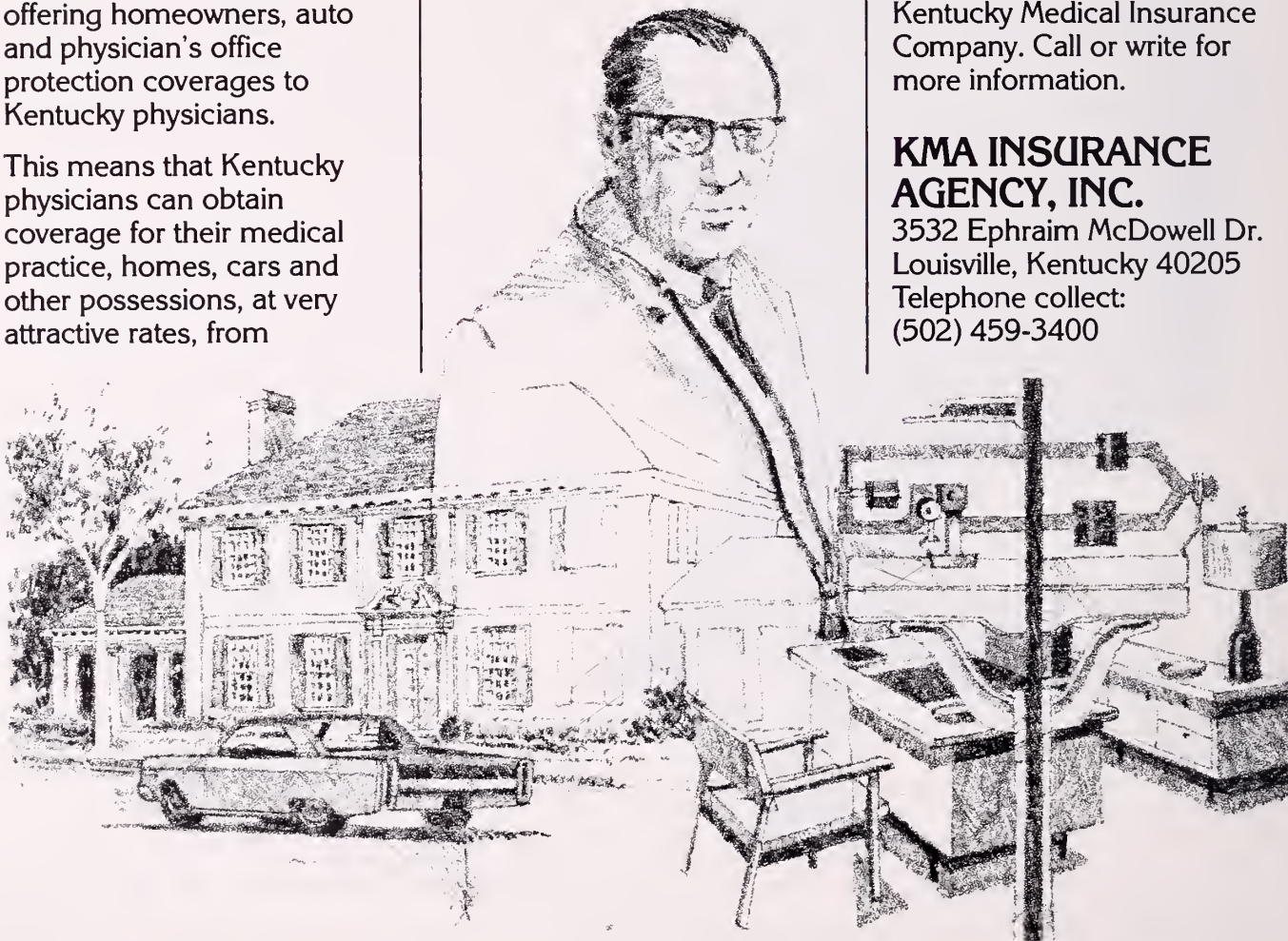
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



Members in the News

Fred C. Rainey, M.D., Seeks AMA Position

The KMA Board of Trustees recently announced the candidacy of Fred C. Rainey, M.D., of Elizabethtown, for a three-year term as a member of the AMA Board of Trustees. Doctor Rainey is a Past President of KMA and a KMA Delegate to the AMA.

At the national level, Doctor Rainey serves as the President of the Board of Directors of the American Medical Political Action Committee (AMPAC) and serves on the prestigious AMA Council on Legislation having first completed a term as Chairman of the Council.

Doctor Rainey's involvement in organized medical activities in KMA and the AMA span over 20 years. He has been in the practice of family medicine in Elizabethtown for 25 years.



NEW MEMBERS

Bracken County

Stephen P. Christiansen, M.D.

Christian County

Mark Lee Crawford, M.D.

Aziz A. Gopalani, M.D.

Usha Gopalani, M.D.

Paul H. Rose, D.O.

Daviess County

Melba C. Briones, M.D.

Tristan Briones, M.D.

Namita Gopal, M.D.

Gregory W. Moore, M.D.

Fayette County

El-Sayed Hegab, M.D.

Hardin County

Ghazi H. Qaisi, M.D.

Hopkins County

Francis J. Block, M.D.

Robert Brandon, M.D.

March 1984

Betty Delacy Coleman, M.D.

Larry Bruce Coleman, M.D.

Cheryl A. Copas, M.D.

David Decker, M.D.

Hugh DeJarnette, M.D.

Holly A. Hina, M.D.

Brooks Horsley, M.D.

Henry Y. Liao, M.D.

Richard H. May, M.D.

Jim Nelson, M.D.

Raymond T. Quatro, M.D.

David Shane Rice, M.D.

Donald Scheible, M.D.

John M. Smith, M.D.

Robert D. Tague, M.D.

Barton C. Trover, II, M.D.

Debra Wallace, M.D.

John L. Wilhelmus, M.D.

Jefferson County

Bachu C. Patel, M.D.

Kenton County

Vina R. Bajaj, M.D.

Lawrence Brennan, M.D.

Mark E. Frederick, M.D.

Letcher County

Avelina J. Sembillo, M.D.

Muhlenberg County

William G. Gaidys, M.D.

Perry County

Smita R. Jagdale, M.D.

Pike County

Atley D. Adkins, Jr., M.D.

Theodore Cherukuri, M.D.

John H. Scott, III, M.D.

Trigg County

Anthony B. Dallas, Jr., M.D.

Warren County

Gary M. Howerton, M.D.

IN MEMORIAM

CHARLES B. STACY, M.D.

Pineville

1901-1983

Charles B. Stacy, M.D., Pineville, Family Physician and member of the Kentucky Medical Association for over 50 years died on December 8, 1983. Doctor Stacy was a 1927 graduate of the University of Louisville School of Medicine and began his practice in Pineville in 1927. He was a former Trustee of the KMA 15th District and served as Vice President in 1950-51. Doctor Stacy was an advisor and friend to several Governors of Kentucky and was extremely active in the civic affairs of Pineville and Bell County. He is survived by his wife Hazel Byrley Stacy and one daughter.

The 5th Annual Kareem B. Minhas Memorial Lectureship will be held Tuesday, April 17, 1984 at 6:00 P.M., Kossair-Children's Hospital, Louisville, KY. Lecturer this year will be Samuel Kaplan, M.D., Professor of Pediatrics & Medicine, University of Cincinnati. Sponsored by University of Louisville and qualifies for 1.0 category I credit.

Postgraduate Page

MARCH

- 19-20 Medical Aspects of Sports Symposium: Care of High School and College Athletes, Hyatt Regency Hotel, Lexington, Kentucky
- 22 The Montefiore Centennial Series Symposium on Organ Transplantation, Robbins Auditorium, Albert Einstein College of Medicine, New York, New York
- 25 The 33rd Annual Scientific Session of the American College of Cardiology, Bethesda, Maryland
- 3/26-4/6 Clinical Cytopathology for Pathologists, 1984 Postgraduate Course, The John Hopkins University School of Medicine, Baltimore, Maryland
- 28 The Natural History of Mental Retardation, Bingham Child Guidance Center Conference Room, Louisville, Kentucky
- 30-31 "Diagnosis and Treatment of Common Human Tumors," Executive Inn, Paducah, Kentucky. Sponsored by Kentucky Community Cancer Program

APRIL

- 2-4 An NIH Consensus Development Conference on Osteoporosis National Institute of Health, Bethesda, Maryland
- 4 Residual Attention Deficit Disorders, Bingham Child Guidance Center, Conference Room, Louisville, Kentucky
- 13-14 New Perspectives In Diabetes Management, Hyatt Regency Hotel, Lexington, Kentucky
- 18-19 Pediatric Update for the Practicing Physician, Hyatt Regency Hotel, Lexington, Kentucky
- 25-28 10th Annual Postgraduate Course in High Risk Pregnancy, Hyatt Regency, Louisville, Kentucky
- 25-28 Annual Meeting of the Virginia Society of Ophthalmology, Inc. Williamsburg, Virginia
- 27-29 "Fourth Annual 121st U. S. Army Reserve Command Medical Seminar: Injuries and Diseases in the Theater of Operations," Gatlinburg, Tennessee

MAY

- 3-5 "Common Clinical Challenges in the Elderly" presented by Philadelphia Geriatric Center and the Medical College of Pennsylvania
- 7-11 Nuclear Magnetic Resonance 1984 National Symposium, Hyatt Regency Grand Cypress Resort, Orlando, Florida
- 18 "A Seminar on Investigation of Sex Crimes," Johnson City, Tennessee
- 20-25 Fifteenth Family Medicine Review, Hyatt Regency Hotel, Lexington, Kentucky
- 24 Ninth Symposium—Allergy and Immunology, Hyatt Regency, Louisville, Kentucky
- 30-6/2 AACA Spring Seminar in Anesthesiology, Hilton Head Inn, Hilton Head Island, South Carolina

JUNE

- 5-7 KMA Emergency Medical Care Seminar, Executive West Hotel, Louisville, Kentucky
- 6-8 Update in OB/GYN, Hyatt Regency Hotel, Lexington, Kentucky
- 11-16 American Cancer Society National Conference on Radiation Oncology, San Francisco, California

SEPTEMBER

- 1-3 Multispecialty Ophthalmic Plastic Surgery Symposium, Second Annual Meeting, Lexington Marriott Resort Hotel, Lexington, Kentucky
- 3-7 XV International Congress of the International Academy of Pathology, Fontainebleau Hilton, Miami Beach, Florida
- 6-8 14th Annual Peripheral Vascular Disease Symposium, Saint Anthony Hospital, University Hilton Inn, Columbus, Ohio
- 17-20 KMA Annual Meeting, Hyatt Regency/Lexington Convention Center, Lexington, Kentucky

THE
MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA



FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY

YOUR FIRST STEP TO FIRST QUALITY PROTECTION

CONTACT FIELD REPRESENTATIVES

Louisville Office

DONALD G. GREENO

400 Sherburn Lane, Suite 104,

Louisville, Kentucky 40207

(502) 895-5501

Lexington Office

CHARLES E. FOREE

Suite 103B, 152 East Reynolds Road

Lexington, Kentucky 40503

(606) 272-9124

CLASSIFIED

Hilton Head Vacation Villa Palmetto Dunes — New professionally decorated two bedroom/two bath villa/full kitchen and laundry. Directly on 15th tee of Fazio. Private pool, tennis, near ocean and Shelter Cove Harbor. Dennis R. Molony, M.D., 18 North Fort Thomas Avenue, Fort Thomas, KY 41075 (606) 781-5020

Medical Equipment for Sale: exam rooms, x-ray, lab, general office equipment. Financing available. Call 606/269-4668

Wanted — Family Physician to join two physician family practice in western Kentucky town of 8,000. Fully equipped modern office located next to 60 bed hospital. Send resume to: Ralph Cash, Jr., M.D., P.O. Box 627, Princeton, KY 42445

ABIM solo internist in beautiful college town, seeks general internist or subspecialist to join him in July of 1984. Please send resume to Bennet D. Cecil, M.D., 307 W. Broadway, Danville, Kentucky 40422

FOR SALE two physician **FAMILY PRACTICE**. South Central Kentucky location. Fully equipped clinic near open staff hospital. Retiring, but will stay for orderly transition period. Clinic building for sale or lease. Write P.O. Box 20218, Bowling Green, KY 42101

Family Practice in Southern Kentucky community: available immediately. Community serviced by 53 Bed hospital 0.6 miles from office. Community located within 30 miles of two referral centers. Coverage available in town by other practitioners. Community is located 7 miles from Barren River State Park and near cave area. All equipment, supplies, and charts included. Must sell, moving to teaching position out of state. **CALL: (502) 237-5483**

FOR SALE
Well established Internal Medicine practice. Grossed \$154,000 in 1983. Will sell all fixtures, furniture etc. Contact Gerald Psimer 2533 Larkin Road; Lex Ky 40503



SPECTRUM EMERGENCY CARE, Inc. **EMERGENCY MEDICINE**

Part-time and full-time positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (8-60 hour shifts). For details write or call:

Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214

1-800-848-2938 / 614-457-9761

All inquiries will be kept confidential

Are you concerned about what your drinking is doing to you? — to your practice? — to your family?

For Help Call

**COMMITTEE ON
IMPAIRED PHYSICIANS
502/459-9790**

The weight of objective evidence supports the clinical efficacy of

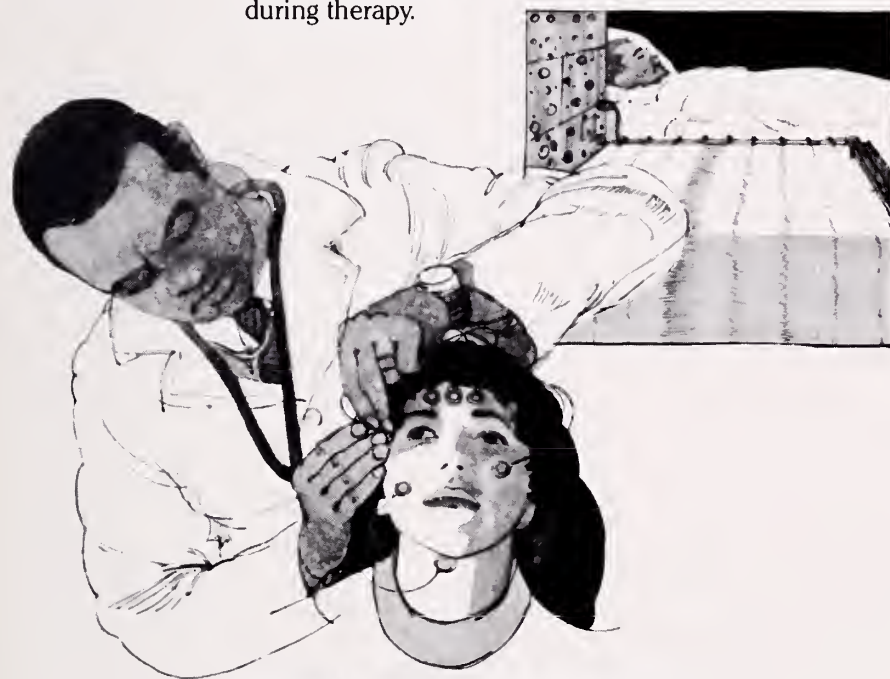
Dalmane®

flurazepam HCl/Roche

15-mg/30-mg capsules



- Studied extensively in the sleep laboratory—the most valid environment for measuring hypnotic efficacy.¹⁻¹²
- Studied in over 200 clinical trials involving over 10,000 patients.¹³
- During long-term therapy, which is seldom required, periodic blood, kidney and liver function tests should be performed.
- Contraindicated in patients who are pregnant or hypersensitive to flurazepam.
- Caution patients about drinking alcohol, driving or operating hazardous machinery during therapy.



References: 1. Kales A et al: *J Clin Pharmacol* 17:207-213, Apr 1977 and data on file, Hoffmann-La Roche Inc., Nutley, NJ. 2. Kales A: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 3. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 4. Kales A et al: *JAMA* 241:1692-1695, Apr 20, 1979. 5. Kales A, Scharf MB, Kales JD: *Science* 201:1039-1041, Sep 15, 1978. 6. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 7. Kales A, Kales JD: *Pharmacol Physicians* 4:1-6, Sep 1970. 8. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 9. Dement WC et al: *Behav Med* 5:25-31, Oct 1978. 10. Vogel GW: Data on file, Hoffmann-La Roche Inc., Nutley, NJ. 11. Karacan I, Williams RL, Smith JR: The

sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington, DC, May 3-7, 1971. 12. Pollak CP, McGregor PA, Weitzman ED: The effects of flurazepam on daytime sleep after acute sleep-wake cycle reversal. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, June 30-July 4, 1975. 13. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

Dalmane® (flurazepam HCl/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

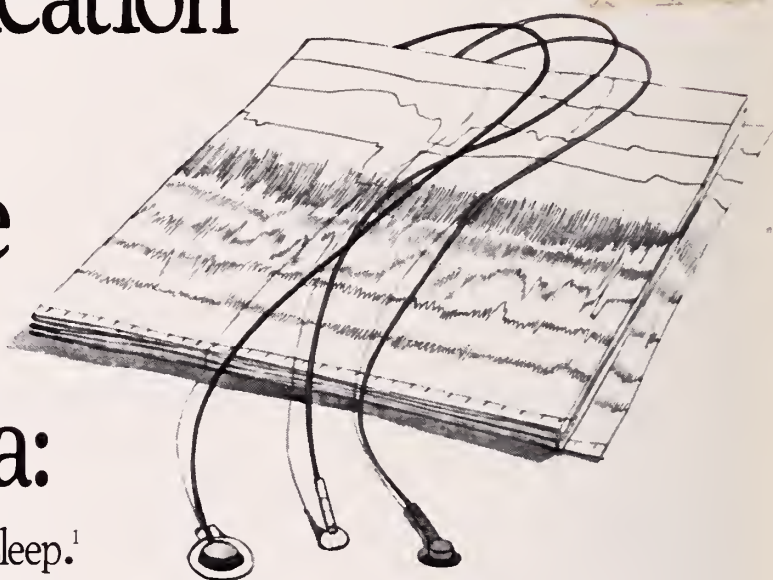
ROCHE Roche Products Inc.
Manati, Puerto Rico 00701

Contemporary Hypnotic Therapy

Dalmane® [flurazepam HCl/Roche] Stands Apart

Only one
sleep medication
objectively
fulfills all these
important
criteria:

- Rapid onset of sleep.¹
- More total sleep time on the first 3 nights of therapy.¹
- More total sleep time on nights 12 to 14 of therapy.¹
- Continued efficacy for at least 28 nights.²
- Seldom produces morning hangover.³
- Avoids rebound insomnia when therapy is discontinued.^{1,4,5}



15-mg/30-mg capsules

Dalmane®
flurazepam HCl/Roche



Roche Products Inc.
Manati, Puerto Rico 00701

Copyright © 1984 by Roche Products Inc. All rights reserved.
Please see summary of product information on reverse side.

STACKS

JOURNAL OF THE
Kentucky
Medical
ASSOCIATION

**Chairman
of the
Board**

Donald C. Barton, M.D.

page 192

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF KENTUCKY

APR 19 1984

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 4

April 1984

SCIENTIFIC

- Spontaneous Rupture of the Normal Diameter
Atherosclerotic Aorta 159
*Walter C. Ashcraft, M.D., Thomas McCallum, M.D.,
Donald Gullickson, M.D. and Robert L. Fulton, M.D.*

- Acute Non-Tuberculous Epyema in Children 163
A 25-Year Review
Porter Mayo, M.D.

- Diagnosing Delirium in Acute Mental Disturbance 168
*Gary L. Crump, Adrian J. Pellegrini, Steven Lippmann, M.D.
and Manoochehr Manshadi, M.D.*

- Complications Following Postpartum Sterilization by 171
Bilateral Tubal Ligation
Christine L. Cook, M.D. and John M. Farmer, M.D.

- Breast Reconstruction After Mastectomy 183
Edheard A. Luce, M.D. and Sharon Romm, M.D.

EDITORIAL

- Anachronisms 181

PROFILE

- Donald C. Barton, M.D. 192

ASSOCIATION

- Emergency Medical Care Seminar 197

REGULAR FEATURES

- President's Page 155
Auxiliary 188,194,195

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific; Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign, (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533.....	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40403 (606) 986-2323	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1986
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6143	1984

Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6472	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574	1986
4th.....	THOMAS R. TAYLOR, M.D., 914 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th.....	BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111.....	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40342 (502) 839-6981.....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3748	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113.....	1984
12th.....	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 324-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

APRIL BUYERS' GUIDE FOR JOURNAL OF KMA

Blue Cross & Blue Shield of Kentucky	157
Boots Pharmaceuticals	178, 179, 180
Classified	202
General Leasing	198
Health Care of Louisville	199
Insurance Corporation of America	198
International Conferences	201
KMA Insurance Agency, Inc.	196
KMA Insurance Agency, Inc.	152

KMCO.	158
KMIC	187
A. P. Lee	201
Eli Lilly and Company.....	182
Medical Protective Company	175
Roche Labs	203, 204
Spectrum Emergency Care	201
Smith, Kline & French Labs.....	177
The Upjohn Company	189

PRESIDENT'S PAGE



About two weeks ago my good friend Donald Barton, M.D., sent me some news clippings about the Democratic presidential contender, Walter Mondale's, triumphal tour through west Florida's retirement community. Mr. Mondale was condemning the rising cost of health care to his public, and making broad sweeping statements that something must be done about the advantage being taken of the elderly by the greedy physicians and health care industry. Of course, these elocutionist gymnastics were greeted with great applause. And what was Mr. Mondale's solution? Why, to put a cap on health care costs, to allocate to the states set amounts of money for a given period of time, allowing the states to spend that money in whatever way they saw fit for health care. This would include Medicare and Medicaid as we know it, with all the hospital and other ancillary costs thrown in. Some solution! And yet it brought cheers.

This sort of oratorical legerdemain should certainly wake us up to what we need to be doing in the next few weeks in directing our attention, the attention of our friends and anyone we can possibly influence as to how the next national election must come out. The best way we can do this is to contribute to AMPAC and to KEMPAC. It is shocking to know that only about 15% of Kentucky physicians are members of KEMPAC and about 7% of AMPAC. I wish that you would give some real and serious thought to making contributions to these

two organizations which, more than any other single force that we as physicians can mobilize, may influence the coming elections to secure conservative legislators who appreciate the work that the health care industry is doing.

When you read this epistle, the State Legislature will in all likelihood be adjourned. What our eventual plus or minus gain will be is not clear at this time. But let me state that we have never had a more hard working and expert group than we have there now with Carl Cooper, Jr., M.D., Don Chasteen and Bill Doll. They are to be commended and we should be grateful for their efforts.

As of this writing, it looks as though no Definition of Death Bill will come forth. As badly as one is needed and as self-evident as this need is, the bill has been pulled down and killed. A good Physicians Assistant bill was not put forward. The Physicians Assistant Bill advanced was so vague that we had to oppose it. We need to get together with the interested groups in the next biennium and write a good bill so that we can keep our Certified Physicians Assistants at work in this state.

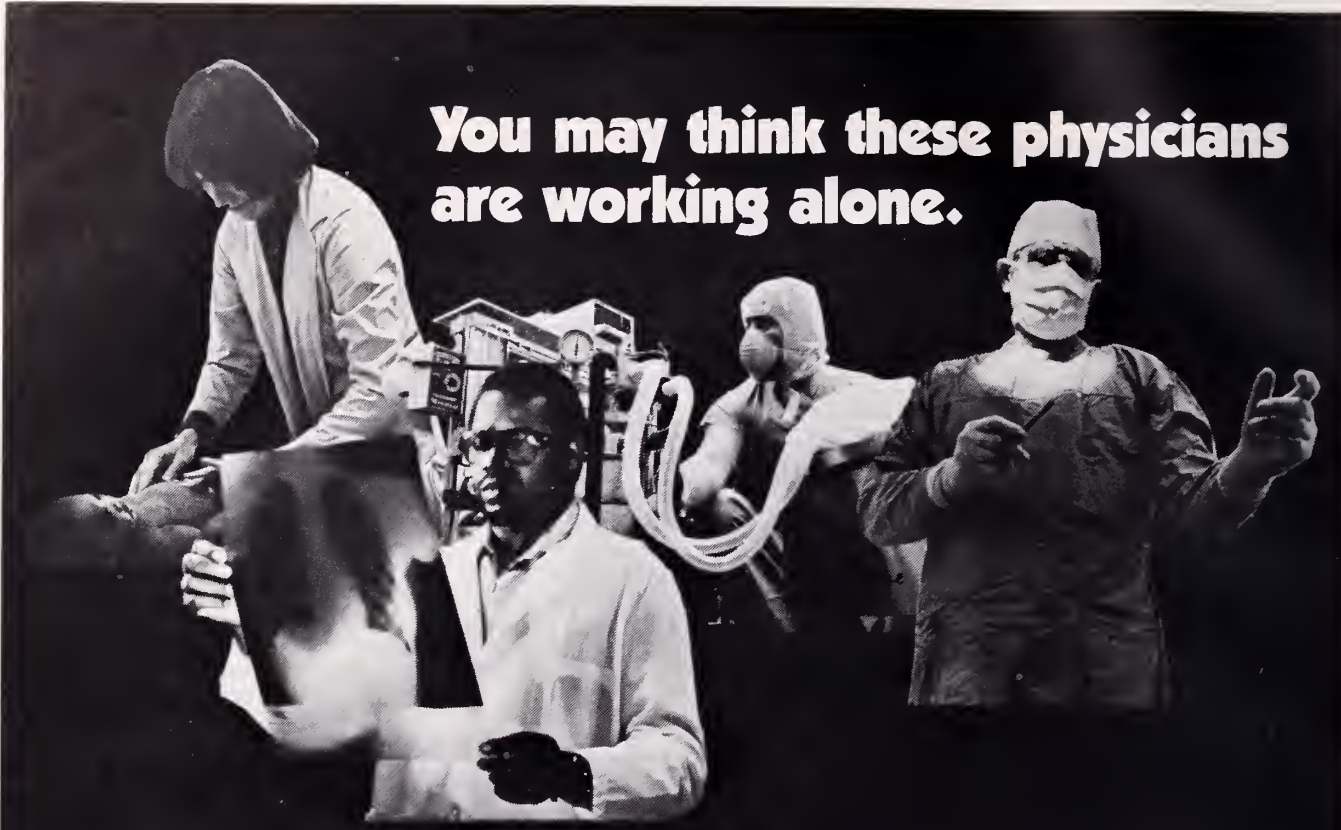
The most acute problem we have at the moment of this writing is the Optometrists Bill which has gone through the House. I hope we can stop it in the Senate. When you read this, you will know, but in the event that we haven't, I want you all to know that we have done everything possible to stop this pernicious legislation. If it passes, it will be an example of what money and effective lobbying can do in the Legislature.

The most effective lobbying we can do as individuals is to get to know our Legislators at home in the legislative interim, know them socially and make them feel we have their interests and problems at heart. Then, when we call on them they will respond. I suspect this is more true in our smaller communities and towns. This is where the optometrists get one up on us.

I can report to you at this time that our computer company has landed on its feet. It is moving along rapidly. We have already sold a number of computer systems. We stand ready to help you with the selection of a computer, its program and management.

Best wishes to you all this spring.

J.B. Holloway, M.D.
KMA President



**You may think these physicians
are working alone.**

But they really have a team behind them.

These physicians spend most of their day working independently in a one-to-one doctor/patient relationship. And chances are that as a physician, you do too.

But even though you can't see it, there's a strong team supporting and protecting the medical profession, affecting your practice while you see patients, research new drugs or perform surgery. That team consists of *your medical societies*.

The American Medical Association and your state and county medical societies believe in the value of teamwork; that only by working together can we, in the face of an increasingly complex professional environment, protect your right to make responsible decisions on how to practice medicine.

We also believe that all medical societies — county, state, and national — have certain tasks that the individual physician couldn't possibly assume — and shouldn't have to.

Tasks such as keeping government regulations from interfering with your practice by representing your interests at local and national levels. And challenging regulatory measures that threaten you and your patients' interests by mounting legal campaigns to defend your rights — up to the Supreme Court if necessary.

Why do we believe that *teamwork* means so much to *all* physicians — even those who work "alone"?

Because ... IT WORKS.

Join Your Medical Societies Today.

For more information, contact your state or county medical societies, or call the AMA collect at 312/751-6196. Or return the coupon below to your state or county medical society.

☐ Please send me information on AMA, county, and state society membership.

☐ I am a member of my county and state societies; please send me information on joining the AMA.

Name _____

Street _____

City _____ State _____ Zip _____

County _____

1983 Blue Shield Report to Physicians

Membership	(as of December 31)	1983	1982
Total Membership		1,227,002	1,261,109
Net Enrollment Gain or Loss (Members)		(34,107)	(83,197)
Percent of Net Increase or Decrease		(2.70%)	(6.19%)
New Employee Groups Enrolled		1,381	1,383

Claims Experience	Number of Services Paid		Amount Paid for Member Services	
Type of Contract	1983	1982	1983	1982
Indemnity	803,004	848,601	\$32,220,676	\$33,239,907
Usual, Customary and Reasonable*	944,532	926,168	60,446,041	57,682,281
Comprehensive Major Medical	168,869	72,319	6,892,802	3,122,118
Extended Benefits, BCBS Medicare Supplement, Major Medical and F.E.P. Supplemental	680,871	599,405	67,650,683	61,657,820
Grand Totals	2,597,276	2,446,493	\$167,210,202	\$155,702,126

*10 Usual, Customary and Reasonable claims, representing less than .0004% of total claims submitted, required Peer Review.

**Blue Cross
Blue Shield
Delta Dental**
of Kentucky



The professionals in
health care financing

Professional Relations Division
9901 Linn Station Road, Louisville, Kentucky 40223 • (502) 423-2150

® Reg. Marks Blue Cross and Blue Shield Assn. • ® Reg. Mark Delta Dental Plans Assn.

Kentucky
Medical Management &
Computer Operations

KMCO

A subsidiary of KMA Physicians Services, Inc.

For the physician's office

"Tomorrow's Technology is Here Today"

Created exclusively to deal with the specialized needs of the physician's office, KMCO is ready to answer your questions on all phases of practice management and computer technology. We know a more efficient practice is the key to more efficient patient care.

For Additional Information Call Us At:
Louisville Area 451-2095 or 1-800-291-1675
or mail this coupon

Send me further information on

- ☐ Computer Services
- ☐ Consultation
- ☐ Practice Management Workshops

Name _____

Address _____

City _____ State, Zip _____

Telephone _____

Mail to: KMCO
3532 Ephraim McDowell Dr.
Louisville, KY 40205

Spontaneous Rupture of the Normal Diameter Atherosclerotic Aorta

WALTER C. ASHCRAFT, M.D., THOMAS MCCALLUM, M.D.

DONALD GULLICKSON, M.D. AND ROBERT L. FULTON, M.D.

While rupture of an aneurysmal aorta is a common event, perforation of a normal sized aorta is extremely rare. An example of such an event, successfully treated, is reported. It is apparent from review of the literature that spontaneous rupture of a non-aneurysmal aorta occurs in hypertensive patients who have atherosclerosis. Complete rupture seems to occur in stages with initial formation of a false aneurysm. Immediate surgical repair is recommended.

Rupture of the aorta due to atherosclerotic aneurysmal disease or trauma are common events. Perforation of an infected aorta, either aneurysmal or of normal diameter, is less frequent. Spontaneous perforation of a normal diameter aorta is extremely rare, 11 cases having been reported previously.

Recently, a 60-year-old woman suffered rupture of a non-aneurysmal abdominal aorta and was treated successfully at the Bishop Randall Hospital. It is not because this event is so unusual, but because it has been rarely diagnosed pre-mortem, and because associated factors are so common, that attention is directed toward the present example.

Case Report

A 60-year-old Shoshoni woman with long-standing diabetes mellitus, hypertension and atherosclerotic vascular disease, was admitted to Bishop Randall Hospital on September 1, 1980, with cramping left upper quadrant abdominal pain, nausea and vomiting of one week's duration. She is a non-smoker. She had been treated

with insulin, hydrochlorothiazide and propranolol. The woman had had a left femoral to peroneal and posterior tibial saphenous vein bypass graft performed December 21, 1979, for symptoms of leg ischemia. At that time an aortogram (Figure 1) showed an atherosclerotic, but normal sized, abdominal aorta. The operation had relieved her ischemia and the graft was functioning well.

Physical examination showed a blood pressure of 210/104 and a temperature of 99.4 F. Her abdomen was soft, not distended, with normal bowel sounds. The palpable aorta was tender and felt to be slightly enlarged. Peripheral pulses were intact.

Laboratory examination produced a hematocrit of 46% with a white blood cell count of 13,200 and a normal differential. Random initial blood sugar was 251 mg/100 cc, serum sodium was 126 meq/l, and potassium was 3.3 meq/l.

Roentgenologic examination of the chest and abdomen showed evidence of a normal diameter, calcified aorta, but were otherwise normal.

Initial medical management ameliorated the cramping abdominal pain and corrected the chemical abnormalities. Her hypertension was initially, successfully, managed with alpha-methyldopa.

Because the abdominal pain did not fully subside, a real-time sonogram was obtained September 4, 1980. This study suggested a dissection of the abdominal aorta (Figures 2 & 3). Surgical consultation was sought. The patient's hematocrit had dropped to 26%. Her arterial systolic pressure had risen again to over 200 mm Hg., requiring sodium nitroprusside for control. The abdomen was soft, but tender with normal bowel sounds. Peripheral pulses remained intact.



Fig. 1: Abdominal Aortogram (12-20-79) showing normal-sized atherosclerotic aorta.

Because the diagnosis of aortic dissection had been entertained, an aortogram was performed (Figures 4, 5 & 6). The aortogram demonstrated a leak in the posterior-left lateral wall. The patient was taken to the operating room where, through a long midline incision, the aorta was exposed. There was a 6-7 cm hematoma surrounding the aorta at the level of the inferior mesenteric artery. The hematoma was well-confined. After control of the proximal aorta and the iliac arteries, the heavily atherosclerotic aorta was opened through the hematoma. A hole measuring 0.5 cm in diameter was present in the posterior wall of the aorta which communicated with the hematoma. There were two ages of clot in the hematoma, some appeared old and other more recent. Histologic examination of the hematoma showed that the "wall" was not made up of aortic tissue. The material was examined for microorganisms, but none were found. The aorta was reconstituted with a woven bifurcated Dacron graft.

The patient made an uneventful recovery after her various medical problems were brought under control.



Fig. 2: Real-time ultrasonogram of the abdomen taken in a longitudinal projection 1-2 cm to the left of midline. Arrows point to distal abdominal aorta. Arrowheads outline sonolucent hematoma. H = Head. F = Foot. Scale marks are 1 cm.

Comment: Copping, in an editorial-style communication, listed two patients without aneurysms who died as a result of abdominal aortic rupture.¹ The cases were not commented upon. Rodriguez and Rivera reported what they believed to be the first example of such an event.² Their hypertensive patient had complained of chronic, vague abdominal pain. The patient exsanguinated from rupture of the descending aorta into the lung and died. Diagnosis of spontaneous rupture of a normal-sized atherosclerotic aorta was made at post-mortem examination.

The first report of survival of a ruptured non-aneurysmal atherosclerotic aorta was by Cosio-Pascal and Cardoso.³ Their patient developed a bleeding false aneurysm of the descending aorta into the lower lobe of the left lung. Resection and grafting of the normal-sized thoracic aorta was successfully accomplished.

A similar situation was presented by the staff of Massachusetts General Hospital.⁴ The patient also was hypertensive with rupture of the descending aorta. A normal-sized, atherosclerotic aorta was found at autopsy. Lagaay reported four cases of perforation of the abdominal aorta.⁵ One aorta perforated following repair of co-arcuation and was not atherosclerotic. The patient had extreme hypertension. The other three patients bled from non-aneurysmal atherosclerotic abdominal aortas. Two patients, at least, were severely hypertensive. Diagnosis was delayed in all four. Operative repair was successful in three of the four patients. Calick and oth-



Fig. 3: Real-time ultrasonogram in transverse projection. Arrow points to normal-sized distal abdominal aorta and arrowheads outline sonolucent mass (hematoma) surrounding aorta. Scale marks are 1 cm.

ers described a hypertensive patient who died from rupture of non-aneurysmal atherosclerotic arch.⁶ Treatment was delayed despite an aortogram showing a contained hematoma (false aneurysm). The staff at Massachusetts General Hospital discussed the post-mortem examination of a hypertensive patient who ruptured the ascending aorta.⁷ Despite drainage of a hemopericardium, the site of perforation was detected only at autopsy.

The cumulative experience indicates that a normal caliber aorta may spontaneously rupture anywhere along its length, although the most common sites are the descending and infrarenal aorta. The patients at risk are apparently hypertensive at the time of leakage with heavily atherosclerotic aortas. Further, diagnosis had been uniformly delayed. Almost all of the patients had premonitory symptoms or signs of rupture of the aorta. These ranged from cardiac tamponade to the vague abdominal pain of the present case. Exsanguination into the lung occurred in all of the examples of perforated descending aortas. The abdominal hematomas were better-contained (as is the case with aneurysmal rupture), being more favorable to operative intervention.

April 1984

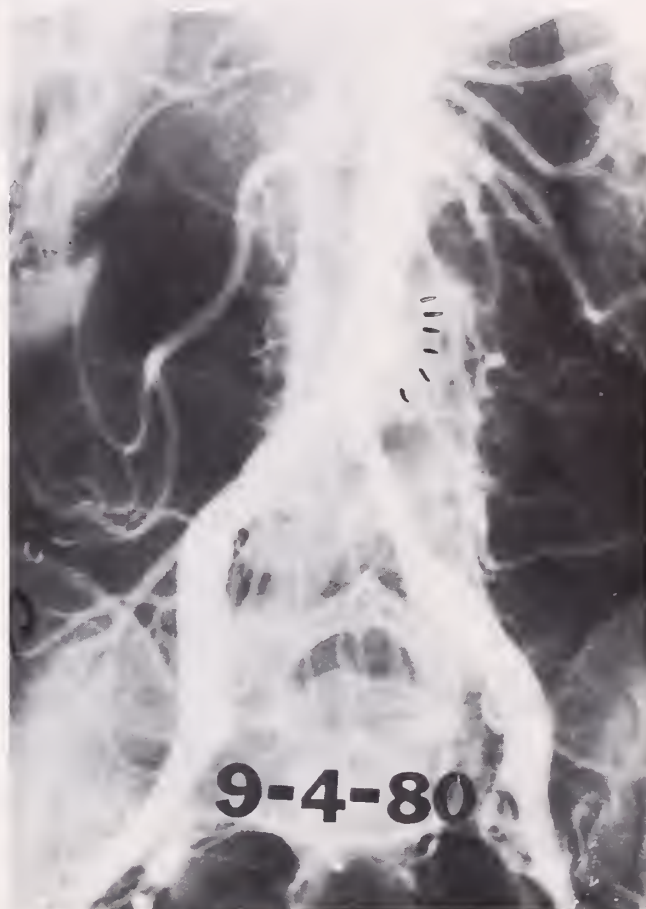


Fig. 4: Aortogram (9-4-80) shows left lateral bulge of distal aorta not present on previous study.

Radiologic examination, as is well-shown in the present patient, is of great value in discerning the nature of the patient's complaints. Sonography was suggestive of aortic rupture or dissection in our patient. It is not yet possible to clearly delineate the condition from dissection of the aorta by clinical or sonographic methods. Since the condition is so unusual, aortography is probably advisable if the condition is suspected and the patient is not in shock.

The clinical course appears to consist of initial tear of the aorta followed by formation of a false aneurysm. After a variable period of delay, the false aneurysms seem to enlarge or freely rupture. Hence, hypertensive patients with abdominal pain suggestive of aortic dissection or tearing, or suspicious chest masses should undergo aortography. Immediate repair of such false aneurysms of the aorta seems to be a prudent course.

The rarity of rupture through or near an atherosclerotic plaque suggests that the aortic wall is not severely weakened by atherosclerosis. Certainly infected aortic walls are weakened and form aneurysms with and with-



Fig. 5: Lateral Aortogram. A false aneurysm measuring 1 × 1.5 cm extends posterolaterally.

out rupture. Reviews of patients with tuberculosis, syphilitic or salmonellotic aortas clearly show the possibility of aortic rupture in normal-sized aortas.^{8,9} Chronic steroid users may rupture a normal-sized aorta.¹⁰ At least two causes have been reported and one of the present authors has observed this phenomenon.

The shear stresses on the intima have been well-described by Fry, and from his data it would seem that the atherosclerotic intima is at risk for disruption in the hypertensive patient.¹¹ Rupture into the media (dissection) occurs not infrequently.¹² The adventitia is strong and, unless it is severely diseased, rupture of the normal-sized aorta, even in severe hypertensives, is unusual.

Conclusions

A case report and review of the literature show:

1. Rupture of non-infected, non-aneurysmal aortas may occur spontaneously.
2. Atherosclerotic aortas subjected to increased blood pressure are at risk.
3. The signs and symptoms are often vague.
4. Diagnosis is often delayed.
5. Complete rupture appears to occur in stages, with formation of false aneurysms followed by hemorrhage.



Fig. 6: Right oblique spot film of distal abdominal aorta demonstrates false aneurysm in profile (arrow).

6. Aortography is indicated in hypertensive patients with undiagnosed abdominal pain or mediastinal masses.

7. Immediate repair of demonstrated disruption of the aortic intima is the treatment of choice.

References 1. Copping GA: Spontaneous rupture of abdominal aorta. *JAMA* 1953; 151:372-376. 2. Rodriguez HF and Rivera E: Spontaneous rupture of the thoracic aorta through an atheromatous plaque. *Ann Int Med* 1961; 54:302-313. 3. Cosio-Pascal M and Cardoso M: Rupture of the aorta into the left lung (aorto-pulmonary fistula with lung hematoma formation). *JTCVS* 1966; 51:834-838. 4. Castleman B and McNeely VB: Case records of the Massachusetts General Hospital (case 44-1977). *NEJM* 1977; 297:996-1003. 5. Lagaay MB: Spontaneous rupture of non-aneurysmatic abdominal aorta. *J Cardiovas Surg* 1977; 15:490-493. 6. Calick A, Vance ZB and Berger SA: Spontaneous aortic rupture through atheromatous plaque. *NY State J Med* 1973; 73:2068-2070. 7. Castleman B and McNeely VB: Case records of the Massachusetts General Hospital (case 43-1970). *NEJM* 1970; 283:862-870. 8. Mendelowitz DS, Ramstedt R, Yao JS, et al: Abdominal aortic salmonellosis. *Surg* 1979; 85:514-519. 9. Silbergleit A, Arbula A, Defever BA and Nedwicki EG: Tuberculosis aortitis. *JAMA* 1965; 193:83-85. 10. Smith, DC and Hirst, AE: Spontaneous aortic rupture associated with chronic steroid therapy for rheumatoid arthritis in two cases. *Am J Roent* 1974; 132:271-273. 11. Fry DL: Acute vascular endothelial changes associated with increased blood velocity gradients. *Circ Res* 1968; 22:165-197. 12. Wheat, MW and Palmer, RF: Dissecting aneurysms of the aorta. *Curr Prob Surg*, July 1971:4-5.

From The Sections of Surgery, Radiology and Medicine of The Bishop Randall Hospital, Lander, Wyoming. Reprint requests to: Dr. Robert Fulton, Department of Surgery, Trover Clinic, Madisonville, KY 42431.

Acute Non-Tuberculous Empyema in Children

A 25-Year Review

PORTER MAYO, M.D.

Though seen less frequently since the advent of new and more effective antimicrobials, acute empyema thoracis persists as a serious thoracic infection. This report reviews the experience of treatment by early open thoracotomy and decortication as the primary surgical procedure in a series of 33 children from 1955 through 1979, a period noted for the changing bacterial flora and intense antimicrobial therapy. Thirty of the 33 patients had a post-pneumonic empyema. Staphylococcus aureus was the organism most frequently isolated in the 1950's and 1960's; however, a decreasing prevalence of Staphylococcus aureus and a more diverse bacterial flora was evident in the 1970's. The average hospital stay was 12 days. Most patients were discharged by the ninth postoperative day. Two patients had superficial wound infections. There were no deaths and no residual or recurrent empyema pockets. Early thoracotomy and decortication not only is effective in the treatment of acute thoracic empyema but also shortens the hospital stay, returns respiratory function to normal, eliminates daily wound care and the need for prolonged tube drainage and does so with low to absent morbidity and mortality rates. The shifting bacterial pattern has not lessened the advantages and effectiveness of open thoracotomy and decortication. The 33 patients had no subsequent thoracic problems.

Acute non-tuberculous empyema in children most often occurs as a complication of bacterial pneumonia. During the late 1950's and early 1960's, Staphylococcus aureus emerged as the most common causative microorganism isolated.^{1,2,3} Recently, multiple bacterial isolates, including gram negative organisms, are

causing pleural space infection with increasing frequency.^{4,5,6} Though seen less frequently since the advent of new and more effective antimicrobials, acute empyema thoracis persists as a serious thoracic infection. Kittle states that "the evolution of the new microorganisms, the impossibility of treating each and every pneumonia in its early stages, the prevalence of chronic pulmonary disease, etc, remain significant factors that will prevent complete eradication of the disease."⁷ Burford and others have reminded us of the protean nature of empyema, that since the time of Hippocrates it has demonstrated an uncanny ability to change in type and character.^{8,9,10}

During the past 30 years, the changing patterns of operative management and the shift of emphasis from merely controlling infection and saving life has given way to the expectation of a rapid and complete cure. The principle of treatment remains constant whatever the etiology, namely evacuation of the empyema and obliteration of the pleural space by an expanded lung. An increasing number of reports have advocated early open thoracotomy and decortication in recognition of this principle.¹¹⁻¹⁸ The author cites as advantages (1) the removal of the limiting fibrinous membrane, (2) an expanded lung, (3) the elimination of the empyema pocket, (4) the prompt loss of toxicity, and (5) low to absent morbidity and mortality rates.

The purpose of this report is to analyze the experience of early open thoracotomy and decortication as the primary surgical procedure in a series of 33 children, the first group comprising the periods 1955 through 1968 and the second group, 1969 through 1979, two periods noted for the changing bacterial flora and intense antimicrobial therapy. The shifting bacterial pattern has not lessened the advantages and effectiveness of open thoracotomy and decortication.



Fig. 1a: Roentgenogram shows extensive left side post-pneumonia empyema.



Fig. 1b: Patient at one-year follow up.

Materials & Methods

Twenty-one children under the age of 12, having acute empyema secondary to pneumonia and who underwent open thoracotomy and decortication from 1955 through 1968 and subsequent follow up, have been previously reported.¹⁴ Two other patients, over the age of 12, are included, having been operated upon in the same period. An additional group of 10 patients undergoing open thoracotomy and decortication during the period from 1969 through 1979 represent a comparison group.

The children ranged in age from five months to 18 years. Four patients were less than one year of age, 16 from one to seven, seven from eight to 12, three from 13 to 16, and three from 17 to 18 years of age. Males characteristically exceeded females, in number, 27 to six.

In this series of 33 cases, 30 were secondary to pneumonia. The three exceptions included a 14-year-old boy having an acute empyema secondary to a perforated appendix complicated by a fecal fistula and subdiaphragmatic abscess, and two other boys, 14 and 16 years of age, each developing an empyema as a complication of an accidental gunshot wound of the thorax.

Of the 33 patients, 21 (64%) had positive bacterial cultures. Twelve of the 23 (52%) patients treated during the years 1955 through 1969 had positive cultures compared to nine of 10 (90%) from 1970 to 1978. During

the earlier period, a coagulase-positive *Staphylococcus aureus* was present in nine children, while two had *Streptococci hemolyticus* and one patient had *Streptococci fecalis*. During the 1970's the sharp rise in incidence of positive bacterial cultures was accompanied by a decreasing prevalence of *Staphylococcus aureus* and a more diverse bacterial flora. (Table 1)

The right lung was affected in 21 patients and the left lung in 12 patients. The necrotic remnants of pulmonary abscesses were present in seven patients, six affecting the right lung and one the left. Tissue necrosis, due to pulmonary abscess, was easily excised and bronchial air leaks closed.

Roentgenographic findings varied from moderate to complete opacification of the hemithorax (Fig. 1) to a more atypical type of empyema characterized by total collapse of the lung secondary to rupture of a *Staphylococcal* pneumonic pneumatocele (Fig. 2) and that of multiple pockets interspersed from the diaphragm to the apex, some of which were closeted between the lung and the mediastinum (Fig. 3).

Scoliosis and mediastinal shift characterized the more progressive stage of the empyema and were corrected in every instance by decortication and obliteration of the empyema space by an expanded lung.

Preliminary closed tube drainage was never used. Open thoracotomy and decortication was the initial and only operative procedure employed.



Fig. 2a: Post-Staphylococcus pneumonia complicated by rupture of a pneumatocele and total collapse of the right lung.

A mature empyema characterized by suppurative loculations and thick, unyielding fibroblastic peel was present in every patient. The trapped lung was partially or totally compressed by the restrictive peel.

Symptoms were present two to six weeks prior to decortication. The average hospital stay was 12 days. Nineteen of the 33 patients were discharged by the seventh postoperative day, another eight patients by the ninth day and of the remaining six patients, five were discharged by the 14th postoperative day. The one child with a perforated appendix remained in the hospital 18 days following control of the empyema due to multiple intra-abdominal abscesses. Two patients had superficial wound infections. There were no deaths. The 33 patients had no subsequent thoracic problems.

Operative Management

A posterolateral thoracotomy incision was used in each patient and the pleural space entered through the fifth or sixth interspace. The gelatinous and purulent contents were extracted and the peel removed from the lung, chest wall, diaphragm, and mediastinum. Injury to the lung and diaphragm was avoided by meticulous surgery and early decortication. Layer closure was accomplished with catgut suture. Chest tubes were removed in 48 to 72 hours. The almost immediate loss

April 1984



Fig. 2b: Patient at 20-year follow up.

TABLE I		
	BACTERIOLOGY — PLEURAL FLUID	ISOLATES
1955-1969 (23 patients)	<i>Staphylococcus aureus</i>	9
	<i>Streptococcus hemolyticus</i>	2
	<i>Streptococcus fecalis</i>	1
	No growth	11
1970-1978 (10 patients)*	<i>Staphylococcus aureus</i>	4
	<i>Streptococcus hemolyticus</i>	4
	<i>Histoplasma capsulatum</i>	1
	<i>Hemophilus influenzae</i>	1
	<i>Diplococcus pneumoniae</i>	1
	<i>Acinebacter calcoaceticus</i>	1
*Three patients had more than one isolate.		

of toxicity is reflected in the precipitous fall to normal of the temperature and white cell count. (Fig. 4)

Discussion

Laennec expressed the belief that the reason the lung remained collapsed in these cases of empyema was due to the restrictive membrane and not because of the underlying conditions of the lung.¹⁹ Generally, the underlying lung in children shows no damage. In fact, once the lung was expanded, there were no further pulmonary problems manifest clinically or roentgenographically in the patients presented in this report.



Fig. 3a: Roentgenogram shows multiple post-pneumonia empyema pockets loculated and adjacent to the mediastinum.

In 1982 Delorme set forth a new principle in the treatment of chronic empyema cavities, namely that of their eradication by reexpansion of the lung.²⁰ Prior to this time, attention had been uniformly focused on the chest wall, the collapse of which was considered the only means of obliterating the cavity. Although the credit of having enunciated the principle of obliterating large cavities by the active expansion of the lung through decortication belonged to Delorme, Fowler first performed the operation October 7, 1893.²¹

Lilienthal in 1915 was first to treat acute empyema by decortication.²² He methodically stripped the thick membranous peel from the visceral pleura and correctly assessed his finding as showing normal pleura and an expanded lung. The membrane which he removed was not thickened pleura but a tough, fibrotic sheet which was intimately attached to a relatively normal visceral pleura.

Ideally, decortication should be performed at the time of diagnostic confirmation of a fibrinopurulent empyema and a nonexpansile lung accompanied by sepsis. The inelastic peel is much easier to remove when performed early. The procedure is equally effective for anaerobic or aerobic pleural empyemas. In a previous report, the author listed three conditions critical to the optimal success of decortication: (1) it should be the primary surgical procedure, (2) it should be performed at the earliest opportunity, and (3) all elements of the



Fig. 3b: Patient at four-year follow up.

intra-thoracic peel should be removed to ensure complete lung re-expansion and chest wall and diaphragmatic mobility.¹⁴ The same report corroborates the normal pulmonary function values to be expected in patients who have had complete recovery from acute empyema treated by early open thoracotomy and decortication.

The years 1955 through 1979 have been characterized by a change in bacteriology of pleural empyema and the introduction of chemotherapy and antibiotics. The protean nature of empyema need not unfavorably alter the outcome. During this period, the definitive operation of early open thoracotomy and decortication has proved effective in (1) the elimination of empyema with minimal complications, (2) the return of respiratory function to normal, (3) in shortening the course of therapy, (4) minimal to no mortality, (5) rapid return to health, and (6) excellent long-term results. Such results are in sharp contrast to the prolonged drainage associated with tube thoracostomy and open drainage.^{5,6,23-28}

Lilienthal, in 1915, expressed the dictum, "in treating pyothorax a cure is to be striven for in the shortest time and with the fewest operations."²² Early open thoracotomy and decortication has, over an extended period and under diverse conditions of age, etiology, and bacterial flora, best met this goal.

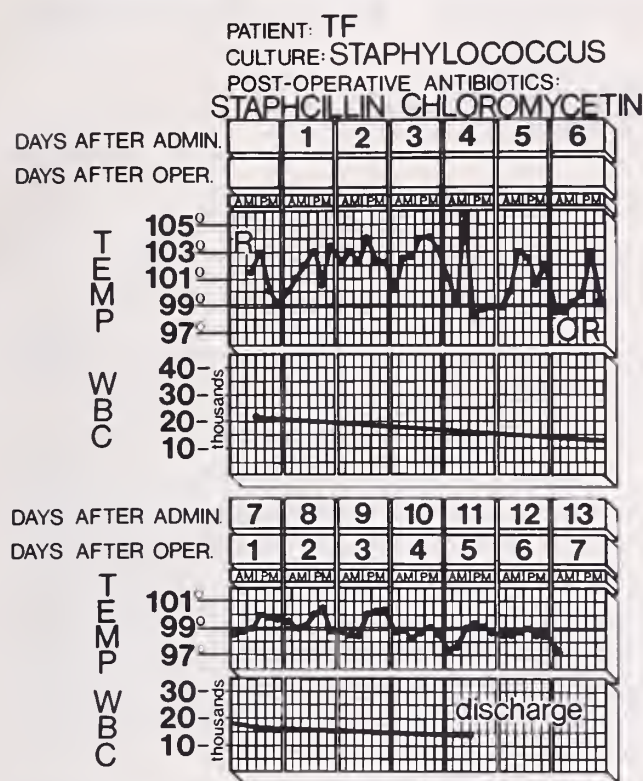


Fig. 4: Graph shows rapid return of temperature and white blood cell count to normal levels.

Acknowledgment

I wish to acknowledge the contribution of Ms. Connie Powell, typist, Mayo, Long & Saha, P.S.C., 168 Burt Road, Lexington, KY 40503, in the preparation of this manuscript.

References 1. Ravitch MM, Fein R: The changing picture of pneumonia and empyema in infants and children. A review of the experience at the Hurriet Lane Home from 1934 through 1958. *JAMA* 175:1039-1944, 1961. 2. Magovern GJ, Blades B: Staphylococcal empyema. *JAMA* 168:365-369, 1958. 3. Geha AS: Pleural empyema: changing etiologic, bacteriologic, and therapeutic aspects. *J Thorac Cardiovasc Surg* 61:626-635, 1971. 4. Sullivan KM, O'Toole R, Fisher R, Sullivan KN: Anerobic empyema thoracis. *Arch Intern Med* 131:521-527, 1973. 5. Sherman MM, Subramanian V, Berger RL: Management of thoracic empyema. *Am J Surg* 133:474-479, 1977. 6. Mavroudis C, Symmonds J, Minagi H, Thomas A: Improved survival in management of empyema thoracis. *J Thorac Cardiovasc Surg* 82:49-57, 1981. 7. Kittle CF: George Ryerson Fowler: Empyema and Decortication. *Surg Rounds* 6:32-47, 1983. 8. Burford TH: Discussion of Mayo WP and McElvein RB: Early thoracotomy for pyogenic empyema. *Ann Thorac Surg* 2:649-657, 1966. 9. Cohn LH, Blaisdell EW: Surgical treatment of non-tuberculous empyema. *Arch Surg* 100:376-381, 1970. 10. Stiles QR, Lindesmith CG, Tucker BL, et al: Pleural empyema in children. *Ann Thorac Surg* 10:37-44, 1970. 11. Mayo WP: Review of pulmonary decortication in the treatment of non-tuberculous empyema. In International Congress on Disease of the Chest, Sum-

maries of the Papers Presented, Oct. 1964, Mexico City, p 113. 12. Mayo WP, McElvein RB: Early thoracotomy for pyogenic empyema. *Ann Thorac Surg* 2:649-657, 1966. 13. Mayo WP, McElvein RB: Treatment of non-tuberculous empyema. *J Ky Med Assoc* 67:40-41, 1969. 14. Mayo WP, Saha SP, McElvein RB: Acute empyema in children treated by open thoracotomy and decortication. *Ann Thorac Surg* 34:401-407, 1982. 15. Morin JE, Munro DD, MacLean LD: Early thoracotomy for empyema. *J Thorac Cardiovasc Surg* 64:530-536, 1972. 16. Fishman NH, Elbertson DG: Early pleural decortication for thoracic empyema in immunosuppressed patients. *J Thorac Cardiovasc Surg* 74:537-541, 1977. 17. Sensenig DM, Rossi NP, Ehrenhaft JL: Decortication for chronic non-tuberculous empyema. *Surg Gynecol Obstet* 117:443-446, 1963. 18. Coon JL, Shuck JM: Failure of tube thoracostomy for posttraumatic empyema: an indication for early decortication. *J Trauma* 15:588-594, 1975. 19. Hedblom CA: The treatment of chronic empyema. *Ann Surg* 72:288-326, 1920. 20. Delorme E: Nouveau traitement des empyemes chroniques. *Gaz Hop* 67:94-96, 1894. 21. Fowler GR: A case of thoracoplasty for the removal of a large cicatricial fibrous growth from the interior of the chest, the result of an old empyema. *Med Record* 44:838-839, 1893. 22. Lilienthal H: Empyema—exploration of the thorax with primary mobilization of the lung. *Ann Surg* 62:309-314, 1915. 23. Weese WC, Shindler ER, Smith IM, Rabinowich S: Empyema of the thorax then and now. A study of 122 cases over four decades. *Arch Intern Med* 131:516-520, 1973. 24. Cattaneo SM, Kilman JW: Surgical therapy of empyema in children. *Arch Surg* 106:564-567, 1973. 25. Yeh TJ, Hall DP, Ellison RG: Empyema thoracis: A review of 110 cases. *Amer Rev Resp Dis* 86:785-790, 1963. 26. Snow N, Lucas A, Gray LA Jr: Thoracic empyema. *J Ky Med Assoc* 80:653-658, 1982. 27. Bryant LR, Chicklo JM, Crutcher R, et al: Management of thoracic empyema. *J Thorac Cardiovasc Surg* 55:850-858, 1968. 28. Emerson JD, Boruchow IB, Daicoff GR, et al: Empyema. *J Thorac Cardiovasc Surg* 62:967-972, 1971.

Diagnosing Delirium in Acute Mental Disturbance

GARY L. CRUMP, ADRIAN J. PELLEGRINI, STEVEN LIPPMANN, M.D.

and MANOOCHEHR MANSHADI, M.D.

Delirium is usually an acute encephalopathic process characterized by confusion, disorientation, short-term memory deficits, and altered or vacillating states of arousal. Autonomic nervous system dysfunctions, abnormal neurologic signs, and visual and/or tactile hallucinations may also occur. Delirium is a manifestation of many diverse physical illnesses which adversely affect cerebral cellular function. Such organic mental illnesses can erroneously be misdiagnosed as functional disturbances. Hyponatremia is one of the many etiologies which can produce a delirium. Physicians should be alert for the detection of deliria; a good differential diagnosis between organic and functional mental illness is essential to provide good medical care.

Delirium is a condition of abnormal mental status and manifestation of an encephalopathic process. Also called acute organic brain syndrome, delirium is usually characterized by disorientation, impairment of short-term memory, disturbances in thinking, illusions, hallucinations, and changes in behavior. Disorientation and short-term memory dysfunction are the most reliable cognitive signs for recognition. Important in the diagnosis of delirium is the variability in the patient's mental status: periods of cognitive disturbance alternating with lucidity.¹ Vacillation in the state of consciousness occurs with changes in the level of arousal. Organic hallucinations **most** typically are visual or tactile. Many deliriae are also accompanied by abnormal autonomic nervous system findings (eg, mydriasis or dry mouth) and by neurologic signs (eg, tremor or myoclonus).¹ Hyponatremia is one well-recognized metabolic cause for delirium.^{2,3}

This case illustrates a patient with a delirium due to hyponatremia. A diagnosis of brief reactive psychosis was made; initially the signs of delirium were overlooked. The dramatic degree of social stress and tran-

sience of diagnostic signs led to erroneous clinical impressions.

Case Report

A 55-year-old married, white female was sent late one night by her family physician to Louisville General Hospital. There had been an extreme change in personality over the previous three weeks characterized by periodic agitation, insomnia, ideas of reference, and bizarre behavior. Her physician had prescribed antidepressant therapy with amitriptyline, 75 mg daily. In the emergency room, she was cooperative, but delusional and anxious.

The patient was under great situational stress; her mother and daughter had left home one week before, a son was getting married the next week, and her husband was hospitalized for colonic resection of terminal obstructive carcinoma the following morning. His terminal illness diagnosis and planned surgery had especially heightened her anxiety levels. The past history revealed six years of benzodiazepine usage following the death of a teenage son. She reported a 30 pound weight loss. One episode of nonsense verbal perseverations and agitation was reported the previous week.

The physical examination was unremarkable. A mental status examination revealed fleeting disorientation to time, with a poor attention span and delusional ideation. The clinical presentation was ascribed to "anxiety" and the patient was hospitalized that night. The admitting diagnosis was brief reactive psychosis. During the admission procedures, a nurse reported confusion and disorientation, signs compatible with encephalopathy.

She was non-delirious but psychotic with self-referential ideation a few hours later, on morning rounds. Delirium was not actively considered and chlorpromazine, 400 mg, was administered in divided doses. Routine blood samples were obtained but that afternoon reported as lost and were reordered. Also that afternoon, she again appeared confused, but only about events concerning her husband's surgery. An encephalo-

Journal of the Kentucky Medical Association

pathic, delirium diagnosis was then seriously entertained, but the clinical picture was thought more related to environmental stresses. A repeat clinical examination, specifically for delirium, was unremarkable with no signs of abnormal mental status.

Several hours later, the patient developed status epilepticus (five grand mal seizures in less than an hour). Stat blood studies revealed a serum sodium of 117 mEq/l with other studies being normal. Hyponatremia was diagnosed. An electroencephalogram documented seizure activity over the right frontotemporal area. A head CAT scan was normal. The seizures and her mental condition, then diagnosed as a delirium, were attributed to the hyponatremia.

A workup for the underlying pathology ensued. Further physical examination revealed a left-sided supraclavicular lymph node. Serum osmolality was 257 mOsm/Kg H₂O (normal: 285-290), while urine osmolality was 352 mOsm/Kg H₂O (normal: 250-1200) and specific gravity 1.014. The chest x-ray revealed a hilar mass. Other studies were normal. The syndrome of inappropriate secretion of anti-diuretic hormone (SIADH) was diagnosed; a lung tumor was suspected as the etiology. Medical and mental status improved dramatically following fluid restriction. The serum sodium rapidly became 129 mEq/l with other electrolytes staying in normal ranges. The mental status remained clear as the serum sodium stabilized at normal values. Bronchoscopic biopsy revealed oat cell carcinoma of the lung. A bone scan demonstrated multiple disseminated metastases. Treatment and course of illness followed the usual experience.

Discussion

This case illustrates the necessity of considering a delirium in the differential diagnosis of all psychiatric presentations. This is especially true when the mental status examination reveals confusion and fluctuations in the sensorium. The patient's mental status vacillated widely. Signs of encephalopathy (confusion and disorientation) occurred in the emergency room, on admission, and again that first afternoon. Each time the diagnosis of an organic brain syndrome was missed because a repeat evaluation was free of organic indicators. Lucidity and encephalopathic signs alternated in a manner classical for delirious patients.

A delirium may be caused by any disturbance of cerebral cellular metabolism.¹ In this patient, the encephalopathy was secondary to a metabolic derangement, hyponatremia, precipitated by inappropriate anti-

diuretic hormone secretion. The ill-effects of hyponatremia on the central nervous system are established.^{2,3} Patients with hyponatremia have significant deficits in cognitive abilities.² Most commonly one sees variation in degrees of disorientation, short-term memory dysfunction, poor concentration, and clouded sensorium. Neurological manifestations correlate with the degree of hyponatremia and with the rapidity of fall in the sodium concentration.³ There is variability in the degree of sensorium change among patients at any given degree of hyponatremia, but when levels are less than 120 mEq/l, most patients have signs of organic confusion; many have seizures.³

The SIADH was caused by oat cell carcinoma of the lung. SIADH is characterized by hyponatremia due to water retention in the presence of urine osmolality greater than that of plasma.⁴ Oat cell carcinoma is notorious for the abnormal secretion of anti-diuretic hormone directly by tumor cells. While SIADH occurs in association with a great number of disorders and with many drugs, oat cell carcinoma accounts for more than 80% of cases.⁴ Some conditions also known to cause SIADH are: other assorted malignancies, non-malignant pulmonary diseases such as tuberculosis or pneumonia, and some brain disorders associated with trauma or inflammatory conditions.⁴ Miscellaneous other causes also exist.⁴ Elevated anti-diuretic hormone levels are even reported in acute psychosis.⁵

Thiazide diuretics, chlorpropamide, carbamazepine, several antineoplastic agents, oxytocin, barbiturates, narcotics, and various other pharmaceuticals are associated with SIADH.⁴ Tricyclic antidepressants are documented as SIADH-inducing agents.⁴ Pertinent here are reports of SIADH being induced by amitriptyline.^{6,7}

This case documents a psychiatric presentation of a disease with clearly demonstrable organic causes. It demonstrates the necessity of differentiating between a functional condition and an organic state in all patients. The course of illness illustrates vacillations characteristic of many deliria. It emphasizes the necessity of an adequate physical evaluation in psychiatry, and a thorough physical and laboratory workup for delirious patients with organic mental disturbance.

References 1. Wells CE, Duncan GW (Editors): Chapter 3, Delirium in *Neurology for Psychiatrists*, F.A. Davis Company, Philadelphia, 1980, pp. 45-64. 2. Gehl MM, Rosenthal RH, Fizette NB, et al: Psychiatric manifestations of hyponatremia. *Psychosomatics*, Vol. 22, 1981, pp. 739-743. 3. Arief AL, Guisado R: Effects on the central nervous system of hypernatremic and hypo-

natremic states. *Kidney Int*, Vol. 10, 1976, pp. 104-116. 4. Harrison's Principles of Internal Medicine. Thorne GW (Editor): 8th edition. McGraw-Hill, New York, 1980, pp. 1691-1694. 5. Ras-kind MA, Weitzman RE, Orenstein H, et al: Is antidiuretic hormone elevated in psychosis? A pilot study. *Biol Psychiatry*, Vol. 13, 1978, pp. 385-390. 6. Subramoniam M, Osnos R: Amitriptyline induced hyponatremia: a case report. *Mt Sinai J Med*, Vol. 48, 1981, pp. 431-433. 7. Luzecky MH, Burman KD, Schultz ER: The syndrome of inappropriate secretion of antidiuretic hormone associated with amitriptyline administration. *South Med J*, Vol. 67, 1974, pp. 495-497.

*From the Department of Psychiatry and Behavioral Sciences
University of Louisville School of Medicine, Louisville, KY*

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Complications Following Postpartum Sterilization by Bilateral Tubal Ligation

CHRISTINE L. COOK, M.D. and JOHN M. FARMER, M.D.

Two hundred and eighteen women underwent immediate postpartum sterilization by a modified Pomeroy technique between June 1973 and December 1975 at Louisville General Hospital. They were evaluated for intraoperative, postoperative, and long term complications. No intraoperative complications were noted. However, short term complications occurred in 11 (5%) women; four (2%) of which were considered major (one patient had hypovolemic shock, one had a right tubal abscess, and two prolonged ileus). Long-term complications were noted in a large number of the 107 patients who were interviewed at least two years following their operation. These consisted of one pregnancy (0.9%); 41 (38.3%) major menstrual alterations, and 16 (15%) subsequent gynecologic procedures. Three women (2.8%) were considering reversal of sterilization. The convenience and financial advantage of postpartum sterilization must be balanced against its morbidity. In this study, short and long-term complication rates were within the range of those reported by others for puerperal sterilization, but were higher than those rates reported for interval operations.

This study was undertaken to determine the short and long-term complication rates associated with postpartum sterilization by bilateral partial salpingectomy. Recent studies have not dealt with this particular procedure, nor has attention been focused on outcome in teaching hospitals. Numerous unresolved questions exist as to whether postpartum sterilization better serves the needs of women who desire permanent sterilization than does interval sterilization.

Method

The study included 218 women (ages 21 to 39), who underwent consecutive postpartum sterilization procedures at Louisville General Hospital between June 1973 and December 1975. Procedures were performed by resident physicians at all levels of training in obstetrics and gynecology. Spinal anesthesia was used in all cases. The average time from delivery to surgery was 29 hours.

A modified Pomeroy procedure¹ using a subumbilical incision was performed on 215 of the women. A knuckle of tube was raised in its midportion with a babcock clamp, a free tie of O-plain suture was placed around the knuckle, and the proximal ends of the knuckle were additionally secured with free ties of #2-0 silk. The tips of a pair of scissors were passed through an avascular space in the mesosalpinx at the center of the loop of tube to destroy it. The ligated portion was excised by cutting through each arm of the loop just above the silk ligatures. Fimbriectomies were performed on two women. In one case, the procedure was not completed because of inability to locate the tubes.

At least two years later, hospital charts of the study patients were reviewed and collated. A telephone interview followed in which several questions about long-term complications were asked.

Results

Demographic data on the patients is given in Table I. Immediate complications occurred in 11 women (5.0%). No major intraoperative complications were reported. Seven (3.2%) experienced minor postoperative problems. (Table II) Four major postoperative complications (1.8%) occurred. Two of the four had persistent adynamic ileus, one had delayed postoperative fever, and one had acute tubular necrosis as a result of postoperative shock. (Table II)

POSTPARTUM STERILIZATION—Cook and Farmer

TABLE I—STUDY PATIENTS

Patient Characteristics	Average
Age	27 years
Parity	3.6
Weight (14% > 200 lbs)	162 lbs
Prenatal visits	6
Time between delivery and surgery	29 hours

One hundred seven of the 218 patients were available for late follow-up. All had been sterilized by the modified Pomeroy method. Menstrual difficulties accounted for most of the long-term complications. (Table III) Forty-one (38.3%) had major alterations in menstrual bleeding patterns, while 16 (15.0%) had minor changes. Changes in menstrual bleeding for which the patients sought medical care were considered major whether or not treatment was required. Minor menstrual changes were those which were noted by the women at the time of interview, but no medical care had been sought. Fourteen (13.1%) complained of increased dysmenorrhea following the operation. Non-cyclic, chronic lower abdominal pain was noted by 14 (13.1%). Nine (8.4%) were subsequently diagnosed with adnexal infection. One (0.9%) had an incarcerated umbilical hernia at the site of the sterilization incision. One pregnancy (0.9%) was reported. One woman died as the result of a drug overdose several months after the operation.

Discussion

All female sterilization procedures are associated with a risk of perioperative complications, long-term difficulties and failure; postpartum sterilizations are no exception.

Four major short-term complications occurred in this series. Two women developed an adynamic ileus, requiring nasogastric suction and prolonged hospitalization. One developed significant fever and chills 28 days postoperatively. Upon abdominal exploration, a right tubal abscess was found. Because of the patient's unstable condition a limited procedure, bilateral salpingectomy was performed. Eight months later, this patient had a diagnosis of severe cervical dysplasia, necessitating hysterectomy. Bilateral oophorectomy for chronic pelvic inflammatory disease was also performed at this time. The fourth patient went into shock four hours postoperatively. An exploratory laparotomy revealed a hematoma in the right mesosalpinx. The estimated blood loss was 2,000 cc. Two days later, the patient developed hematuria with increasing serum creatinine. Acute

TABLE II—SHORT-TERM COMPLICATIONS

	#	%
Fever	2	0.9
Antibiotics	7	3.2
Stitch abscess	7	3.2
Ileus	2	0.9
Tubal abscess	1	0.5
Shock	1	0.5
Transfusions	1	0.5
Total	11	5.0

TABLE III—LONG-TERM COMPLICATIONS

	#	%
Major menstrual change	41	38.3
Minor menstrual change	16	15.0
Dysmenorrhea increased	16	15.0
Chronic lower abdominal pain	14	13.1
Subsequent gynecologic surgery	16	15.0
Hysterectomy	11	10.3
Adnexal infection	9	8.4
Incisional hernia	1	0.9
Pregnancy	1	0.9

tubular necrosis was diagnosed. She began acute dialysis, subsequently rejected a renal transplant, and remains on chronic hemodialysis.

There is no standard criteria for what constitutes major and minor sterilization complications. Therefore, each study may differ in the way it classifies complications. A problem considered minor in one study, may be considered major in another. In four large puerperal series, complications were reported at rates of 6 to 20%.^{2,3,4,5} While the 5% rate reported here compares favorably with that published in these reports, a number of authors report significantly fewer immediate complications with interval laparoscopic sterilization procedures. Mumford and others report a 2% complication rate with laparoscopic ring application in a series of 7000 women.⁶ In 1973, the Complications Committee of the American Association of Gynecologic Laparoscopists reported 1% minor complications and 0.6% major complications among 7000 women who had tubal cauterization.⁷

One pregnancy occurred in the Louisville study. The pathology report verified that only one tube was cut. The woman neglected to return for her six-week follow-up. Several months later when she did return, she was pregnant. She did not return for further care and subsequent attempts to locate her were unsuccessful. The pregnancy rate in two large puerperal series was 1.7%.^{8,9} Many authors have reported failure rates of 0.6% or less for interval laparoscopic sterilization.^{6,10,11} How-

ever, Hughes and Liston reported a pregnancy rate of 2.2% among their patients.¹²

The 107 patients interviewed complained of a relatively large number of problems. Approximately 40% had major alterations in menstrual bleeding, as compared with 51% reported by Lu and Chun,¹³ 28% by Sacks and LaCroix,¹⁴ 10% by Haynes and Wolfe,¹⁵ and 5% by Prystowsky and Eastman.⁸ There was a 15% incidence of subsequent gynecologic surgery in this study. Haynes and Wolfe reported 49%, while Prystowsky and Eastman reported only 9%. Hysterectomies were performed on 10.3% of this study population, as compared with 13% in the Haynes and Wolfe study, and 3% in LaCroix and Sacks' series.

Reports of the incidence of late complications following interval laparoscopic sterilization also vary widely. Menstrual disorders have been variously reported at rates of 7% to 44%.^{16,17,18} However, when Kasonde and Bonnar objectively measured blood loss for up to three months prior to and for six to 12 months following tubal ligation, they found no significant difference.¹⁹ One prospective study demonstrated a 6% incidence of postoperative menorrhagia.²⁰ Another author used postpartum women who were otherwise comparable as controls.²¹ Menstrual irregularities were found in 4.3% of the study patients, as compared with 0.4% of the controls. The overall incidence of gynecologic surgery was not reported in this particular paper, but 47% of the study women underwent subsequent hysterectomy. Only 14% of the control women had had a hysterectomy. Interestingly, this control rate for hysterectomy is higher than the 2 to 13% incidence^{15,16,17,18,22} other investigators have noted among sterilized women. Three of the women (2.8%) interviewed expressed a desire for tubal reanastomosis. However, none had actually requested the procedure. At the time of the operation, these women were a 32-year-old gravida 8, para 8, a 31-year-old gravida 6, para 6, and a 21-year-old gravida 3, para 3. Five percent of women interviewed in Guttmacher's series regretted having been sterilized.²³

No statistical correlation was found between patient characteristics such as age, weight, parity, or number of prenatal visits, and the rate of complications or failures. Likewise, operating time and interval from delivery to surgery were not correlated with poor outcome. Finally, neither age nor parity were predictive of later regret of sterilization.

Conclusion

Women with limited financial and social resources may find the convenience of immediate postpartum sterilization attractive. Although immediate complications, pregnancy rates, and the incidence of subsequent gynecological surgery noted in this study compared favorably with those reported in most other puerperal series, women undergoing interval procedures appear to have fewer complications associated with their sterilization. Particularly high rates of menstrual dysfunction, as perceived by the patient, were found in this study. Some increase in this complaint is also common in most interval sterilization reports, but rarely as often as encountered here. Further prospective studies of menstrual change will be important for clarifying the impact of specific sterilization procedures on menstrual patterns. With a substantially lower complication rate and widespread acceptance as an outpatient procedure, interval sterilization may become a more appropriate method for the indigent woman.

References 1. Bishop E and Nelms WF: A simple method of tubal sterilization. *NY J Med* 214:216, February 15, 1930. 2. Edwards LE and Hakanson EY: Changing status of tubal sterilization. *Amer J Obstet Gynecol* 115:347-353, 1973. 3. Mabray CR, Malinak LR and Flowers CE: Tubal sterilization. Morbidity on a charity hospital service. *Obstet and Gynec* 36:204-207, 1970. 4. McElin JW, Buckingham JC and Johnson RE: Tubal sterilization. *Amer J Obstet Gynec* 97:479-487, 1967. 5. Wilson EA, Dilts PV Jr and Simpson TJ: Comparative morbidity of postpartum sterilization procedures. *Amer J Obstet Gynec* 115:884-889, 1973. 6. Mumford SD, Bhiwandiwala PP and Chi I-C: Laparoscopic and minilaparotomy female sterilization compared in 15,167 cases. *Lancet* 2:1066-1070, 1980. 7. Hulka JF, Soderstrom RM, Corson SL and Brooks PG: Complications Committee of the American Association of Gynecologic Laparoscopists. *J Reprod Med* 10:301-306, 1973. 8. Prystowsky H and Eastman NJ: Puerperal tubal sterilization: report of 1,830 cases. *J Amer Med Assn* 158:463-467, 1955. 9. White CA: Tubal sterilization. *Amer J Obstet Gynec* 95:31-39, 1966. 10. Chi I-C, Laufe LE, Gardner SD and Tolbert MA: An epidemiologic study of risk factors associated with pregnancy following female sterilization. *Amer J Obstet Gynec* 136:768-773, 1980. 11. Thompson BH and Wheelless RC: Failures of laparoscopy sterilization. *Obstet and Gynec* 45:659-664, 1975. 12. Hughes G and Liston WA: Comparison between laparoscopic sterilization and tubal ligation. *Brit Med J* 3:637-639, 1975. 13. Lu T and Chun D: A long term follow-up study of 1,055 cases of postpartum tubal ligation. *J Obstet Gynaec Brit Culth* 74:875-880, 1967. 14. Sacks S and LaCroix G: Gynecologic sequelae of postpartum tubal ligation. *Obstet and Gynec* 19:22-27, 1962. 15. Haynes DM and Wolfe WM: Tubal sterilization in an indigent population. Report of fourteen years' experience. *Amer J Obstet Gynec* 106:1044-1053, 1970. 16. Edgerton WD: Late complications of laparoscopic sterilization. *J Reprod Med* 18:275-277, 1977. 17. Jackson P and Lander JL: Female sterilization: a five-year follow-up in Auckland. *NZ Med J* 91:140-143, 1980. 18. Riedel H-H, Ahrens H and Semm K: Late complications of sterilization according to method. *J Reprod Med*. 26:353-

POSTPARTUM STERILIZATION—Cook and Farmer

358, 1981. **19.** Kasonde JM and Bonner J: Effect of sterilization on menstrual blood loss. *Brit J Obstet Gynaecol* 83:572-575, 1976. **20.** Stock RJ: Evaluation of sequelae of tubal ligation. *Fertil and Steril* 29:169-174, 1978. **21.** Poma PA: Tubal sterilization and later hospitalizations. *J Reprod Med* 25:272-278, 1980. **22.** Williams EL, Jones HE and Merrill RE: The subsequent course of patients sterilized by tubal ligation. *Amer J Obstet Gynec* 61:423-426, 1951. **23.** Guttmacher AF: Puerperal sterilization on the private and ward services of a large metropolitan hospital. *Fertil and Steril* 8:591-602, 1957.

From the University of Louisville School of Medicine, Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology & Infertility, Louisville, KY.

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA



**FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY**

YOUR FIRST STEP TO FIRST QUALITY PROTECTION

CONTACT FIELD REPRESENTATIVES

Louisville Office

DONALD G. GREENO

400 Sherburn Lane, Suite 104,

Louisville, Kentucky 40207

(502) 895-5501

Lexington Office

CHARLES E. FOREE

Suite 103B, 152 East Reynolds Road

Lexington, Kentucky 40503

(606) 272-9124



SPORTS MEDICINE

1984 KMA ANNUAL MEETING

Sept. 17-20

Hyatt Regency/Lexington

Convention Center

Lexington, KY

Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

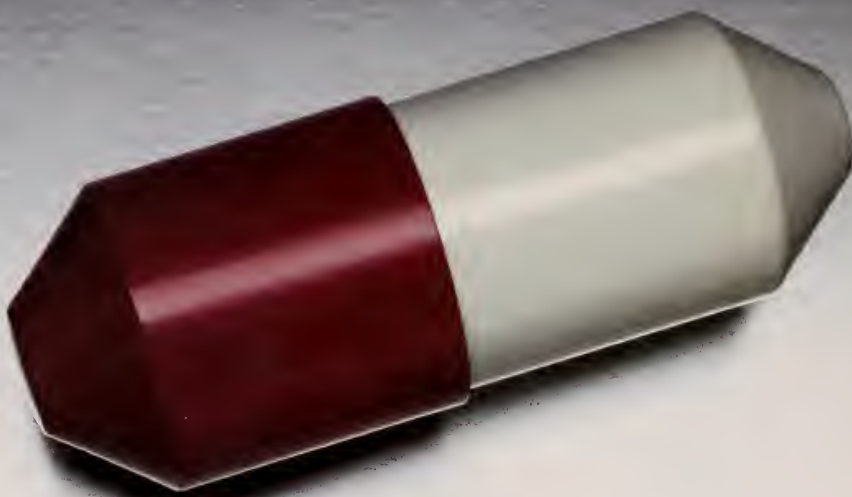
Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

In Hypertension... When You Need to Conserve K^+

Remember the Unique Red and White Capsule: Your Assurance of SK&F Quality

Serum K^+ and BUN should be checked periodically (see Warnings and Precautions).



Potassium-Sparing **DYAZIDE®**

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Over 17 Years of Confidence

The unique
red and white
Dyazide® capsule:
Your assurance of
SK&F quality.



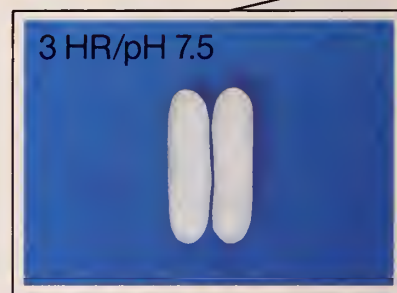
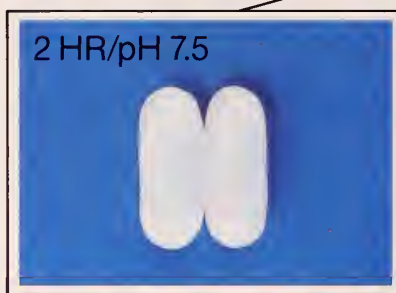
a product of
SK&F CO.
Carolina, P.R. 00630

ZORprin[®]

(ASPIRIN) ZERO ORDER
RELEASE

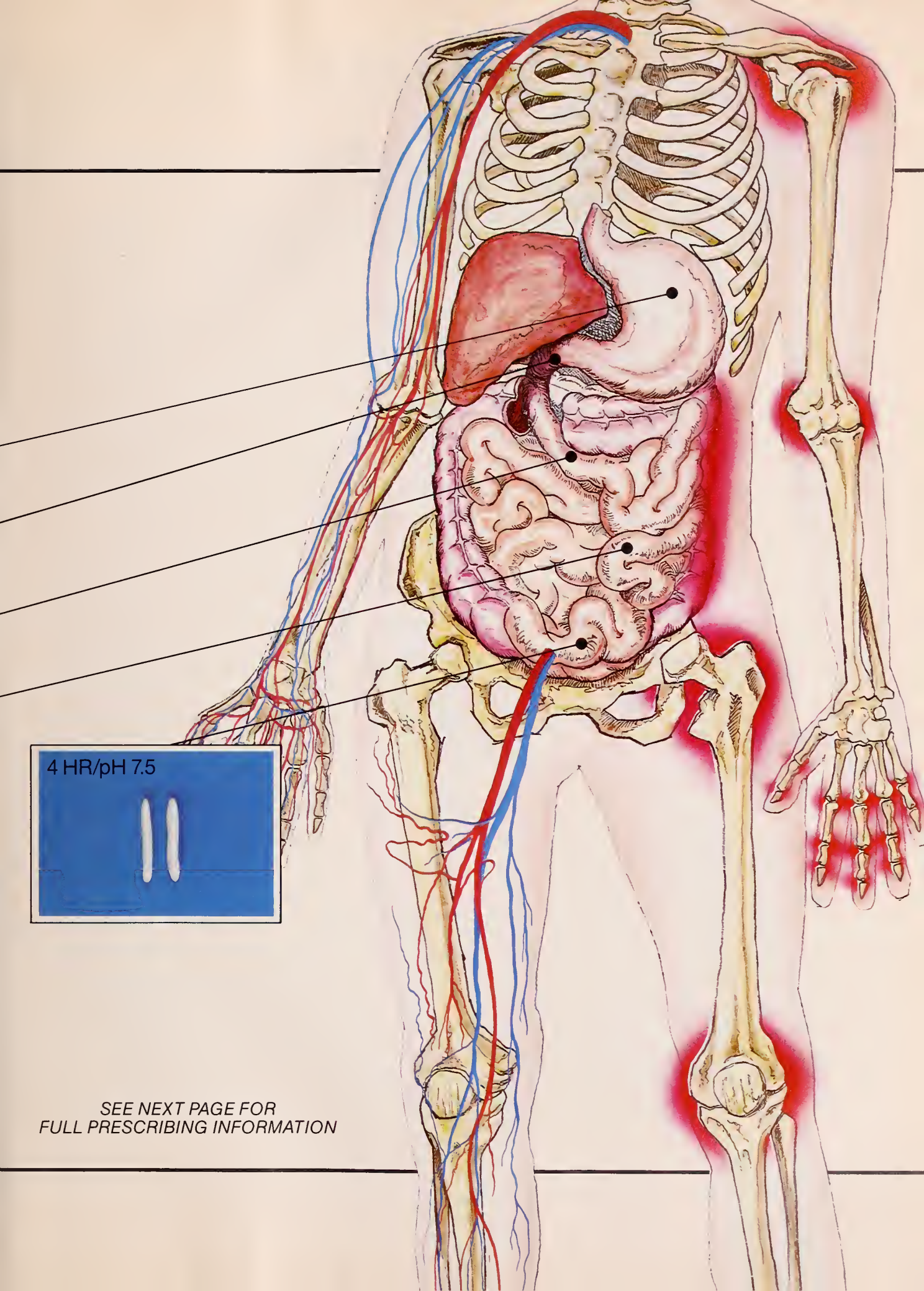
Arthritis Therapy That Checks Out.

- ✓ Gastric distress is reduced. pH-dependent matrix virtually doesn't release in acidic stomach.
- ✓ ZORprin[®] (aspirin) is released in the alkaline environment of the small intestine.
- ✓ Zero-order release delivers drug at a constant rate, reducing serum peaks and valleys.



- ✓ Convenient b.i.d. dosage...enhances patient compliance.
- ✓ Economical...comparable efficacy and safety as other NSAIDs, yet costs approximately one-half as much.
- ✓ Your first step in arthritis therapy... **ZORprin[®]** (ASPIRIN) Zero-Order Release.



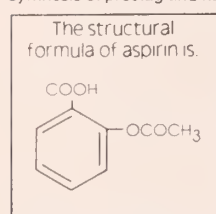


4 HR/pH 7.5

SEE NEXT PAGE FOR
FULL PRESCRIBING INFORMATION

ZORprin (ASPIRIN) Zero-Order Release

DESCRIPTION: Each capsule-shaped tablet of Zorprin contains 800 mg of aspirin, formulated in a special matrix to control the release of aspirin after ingestion. The controlled availability of aspirin provided by Zorprin approximates zero-order release; the *in vitro* release of aspirin from the tablet matrix is linear and independent of the concentration of the drug. **CLINICAL PHARMACOLOGY:** Aspirin, as contained in Zorprin, is a salicylate that has demonstrated anti-inflammatory and analgesic activity. Its mode of action as an anti-inflammatory and analgesic agent may be due to the inhibition of synthesis of prostaglandins, although its exact mode of action is not known. **Zorprin** dissolution is pH-dependent. *In vitro* studies have shown very little aspirin to be released in acidic solutions; whereas, Zorprin releases the majority of its aspirin (90%) in a zero-order mode at a neutral to alkaline pH. It is this pH dependence of Zorprin that reduces direct contact between aspirin and the gastric mucosa, resulting in a reduction of its gastrointestinal side-effect potential. **Bioavailability** data for Zorprin have confirmed that plasma levels of salicylic acid and acetylsalicylic acid can be measured 24 hours after a single oral dose. This substantiates a twice daily dose regimen. Multiple dose bioavailability studies showed similar steady-state salicylate levels for Zorprin as for conventional release aspirin using the same total daily dose. Long-term monitoring of salicylate levels showed no signs of accumulation once steady-state levels were reached (4-6 days). **Studies of *in vivo* prostaglandin levels (PGE₂)** have shown Zorprin plasma levels of salicylic acid and acetylsalicylic acid to reduce PGE₂ levels 14 hours after a single oral 800 mg dose while an equivalent dose of aspirin produced a reduction of PGE₂ levels only through six hours. Zorprin's effect on prostaglandins other than PGE₂ has not been determined. **Salicylates** are excreted mainly by the kidney, and from studies in humans it appears that salicylate is excreted in the urine as free salicylic acid (10%); salicylic acid (75%); salicylic phenolic (10%); acyl glucuronides (5%) and gentisic acid (<1%). **INDICATIONS & USAGE:** Zorprin is indicated for the treatment of rheumatoid arthritis and osteoarthritis. The safety and efficacy of Zorprin have



not been established in those rheumatoid arthritis patients who are designated by the American Rheumatism Association as Functional Class IV (incapacitated, largely or wholly bedridden, or confined to wheelchair, little or no self-care). **In patients treated with Zorprin for rheumatoid arthritis and osteoarthritis,** the anti-inflammatory action of Zorprin has been shown by reduction in pain, morning stiffness and disease activity as assessed by both the investigators and patients. **In clinical studies in patients with rheumatoid arthritis and osteoarthritis,** Zorprin has been shown to be comparable to conventional release aspirin in controlling the aforementioned signs and symptoms of disease activity and to be associated with a statistically significant reduction in the milder gastrointestinal side effects (see **ADVERSE REACTIONS**). Zorprin may be well tolerated in some patients who have had gastrointestinal side effects with conventional release aspirin, but these patients when treated with Zorprin should be carefully followed for signs and symptoms of gastrointestinal bleeding and ulceration. **Since there have been no controlled trials to demonstrate whether or not there is any beneficial effect or harmful interaction with the use of Zorprin in conjunction with other nonsteroidal anti-inflammatory agents (NSAIs), the combination cannot be recommended (see **Drug Interactions**).** **Because of its relatively long onset of action, Zorprin is not recommended for antipyresis or for short-term analgesia.** **CONTRAINDICATIONS:** Zorprin should not be used in patients known to be hypersensitive to salicylates or in individuals with the syndrome of nasal polyps, angioedema, bronchospastic reactivity to aspirin, renal or hepatic insufficiency, hypoprothrombemia or other bleeding disorders. Zorprin is not recommended for children under 12 years of age, it is contraindicated in all children with fever accompanied by dehydration. **WARNINGS:** Zorprin should be used with caution when anticoagulants are prescribed concurrently, since aspirin may depress platelet aggregation and increase bleeding time. Large doses of salicylates may have hypoglycemic action and enhance the effect of the oral hypoglycemics, concomitant use therefore is not recommended. However, if such use is necessary, dosage of the hypoglycemic agent must be reduced. The hypoglycemic action of the salicylates may also necessitate adjustment of the insulin requirements of diabetics. **While salicylates in large doses have a uricosuric effect, smaller amounts may reduce water excretion and increase serum uric acid.** **USE IN PREGNANCY:** Aspirin can harm the fetus when administered to pregnant women. Aspirin interferes with maternal and infant hemostasis and may lengthen the duration of pregnancy and parturition. Aspirin has produced teratogenic effects and increases the incidence of stillbirths and neonatal deaths in animals. **If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus.** **Aspirin should not be taken during the last 3 months of pregnancy.** **PRECAUTIONS:** Appropriate precautions should be taken in prescribing Zorprin for patients who are known to be sensitive to aspirin or salicylates. Particular care should be used when prescribing this medication for patients with erosive gastritis, peptic ulcer, mild diabetes or gout. As with all salicylate drugs, caution should be exercised in prescribing Zorprin for those patients with bleeding tendencies or those on anticoagulants. **In order to avoid exacerbation of disease or adrenal insufficiency,** patients who have been on prolonged corticosteroid therapy should have their therapy tapered slowly rather than discontinued abruptly when Zorprin is made a part of the treatment program. **Patients receiving large doses of aspirin and/or prolonged therapy may develop mild salicylate intoxication (salicylism) that may be reversed by dosage reduction.** **Salicylates can produce changes in thyroid function tests.** **Salicylates should be used with caution in patients with severe hepatic damage, preexisting hypoprothrombemia, Vitamin K deficiency and in those undergoing surgery.** **Since aspirin release from Zorprin is pH dependent, it may change in those conditions where the gastric pH has been increased as a result of antacids, gastric secretion inhibitors or surgical procedures.** **Drug Interactions:** (See **WARNINGS**) Aspirin may interfere with some anticoagulant and antidiabetic drugs. Drugs which lower serum uric acid by increasing uric acid excretion (uricosurics) may be antagonized by the concomitant use of aspirin, particularly in doses less than 2.0 grams/day. **Nonsteroidal anti-inflammatory drugs may be competitively displaced from their albumin binding sites by aspirin. This effect may negate the clinical efficacy of both drugs.** Also, the gastrointestinal inflammatory potential of nonsteroidal anti-inflammatory drugs may be potentiated by aspirin. The combination of alcohol and aspirin may increase the risk of gastrointestinal bleeding. **Aspirin may enhance the activity of methotrexate and increase its toxicity.** **Sodium excretion produced by spironolactone may be decreased in the presence of salicylates.** Concomitant administration of other anti-inflammatory drugs may increase the risk of gastrointestinal ulceration. **Urinary alkalinizers decrease aspirin's effectiveness by increasing the rate of salicylate renal excretion.** Phenobarbital decreases aspirin's effectiveness by enzyme induction. **Pregnancy Category D.** See **WARNINGS** Section. **Nursing Mothers:** Salicylates have been detected in the breast milk of nursing mothers. Because of the potential for serious adverse reactions from aspirin in nursing infants, a decision should be made whether to discontinue nursing or discontinue the drug, taking into account the benefit of the drug to the mother. **ADVERSE REACTIONS: Hematologic:** Aspirin interferes with hemostasis. Patients with a history of blood coagulation defects or receiving anticoagulant drugs or with severe anemia should avoid Zorprin. Aspirin used chronically may cause a persistent iron deficiency anemia. **Gastrointestinal:** Aspirin may potentiate peptic ulcer, and cause stomach distress or heartburn. Aspirin can cause an increase in occult bleeding and in some patients massive gastrointestinal bleeding. However, the greatest release of active drug from Zorprin is designed to occur in the small intestine over a period of time. This has resulted in fewer symptomatic gastrointestinal side effects. **Allergic:** Allergic and anaphylactic reactions have been noted when hypersensitive individuals have taken aspirin. Fatal anaphylactic shock, while not common, has been reported. **Respiratory:** Aspirin intolerance, manifested by exacerbations of bronchospasm and rhinitis, may occur in patients with a history of nasal polyps, asthma, or rhinitis. The mechanism of this intolerance is unknown but may be the result of aspirin-induced shunting of prostaglandin synthesis to the lipoxygenase pathway and the liberation of leukotrienes, e.g. slow-reacting substance of anaphylaxis. **Dermatologic:** Hives, rashes, and angioedema may occur, especially in patients suffering from chronic urticaria. **Central Nervous System:** Taken in overdoses, aspirin provides stimulation which may be manifested by tinnitus. Following initial stimulation, depression of the central nervous system may be noted. **Renal:** Aspirin rarely may aggravate chronic kidney disease. **Hepatic:** High doses of aspirin have been reported to produce reversible hepatic dysfunction. **OVERDOSAGE:** Overdosage, if it occurs, would produce the usual symptoms of salicylism: tinnitus, vertigo, headache, confusion, drowsiness, sweating, hyperventilation, vomiting or diarrhea. Plasma salicylate levels in adults may range from 50 to 80 mg/dl in the mildly intoxicated patient to 110 to 160* mg/dl in the severely intoxicated patient. An arterial blood pH of 7.1 may indicate serious poisoning. The clearance of salicylates in children is much slower than adults and should receive due consideration when aspirin overdoses occur in infants, salicylate half-lives of 30 hours have been reported in infants 4-8 months old. Treatment for mild intoxication should include emptying the stomach with an emetic, or gastric lavage with 5% sodium bicarbonate. Individuals suffering from severe intoxication should, in addition, have forced diuresis by intravenous infusions of sodium bicarbonate and dextrose or sodium lactate. In extreme cases, hemodialysis or peritoneal dialysis may be required. **(A plasma salicylate level of 160 mg/dl in an adult is usually considered lethal.)** **DOSAGE & ADMINISTRATION:** *In order to achieve a zero-order release, the tablets of Zorprin should be swallowed intact.* **Breaking the tablets or disrupting the structure will alter the release profile of the drug.** **It is recommended that Zorprin be taken with sufficient quantities of fluids (8 oz. or more).** **Adult Dosage:** For mild to moderate pain associated with rheumatoid arthritis and osteoarthritis, the recommended initial dose of Zorprin is 1600 mg (2-800 mg tablets) twice a day. Because of Zorprin's prolonged release of aspirin into the bloodstream, Zorprin tablets may be taken as a b.i.d. dose. Further adjustment of the dosage should be determined by the physician, based upon the patient's response and needs. Since it will take 4-6 days to reach steady-state levels of salicylic acid with Zorprin, it is recommended dosages be given for at least one week before further adjustment. In general, patients with rheumatoid arthritis seem to require higher doses of Zorprin than do patients with osteoarthritis. **Zorprin is not recommended for children below the age of 12.** **HOW SUPPLIED: Zorprin Tablets 800 mg:** plain, white capsule-shaped tablets. **Bottles of 100 Tablets—**NDC 0524-0057-01 **Caution:** Federal law prohibits dispensing without prescription. **U.S. Patent No. 4,308,251. Manufactured and Distributed by: BOOTS PHARMACEUTICALS, INC., Shreveport, Louisiana 71106 U.S.A.**

12/8/83 0057-04

Pioneers in medicine for the family



Boots Pharmaceuticals, Inc.
6540 LINE AVENUE, P.O. BOX 6750
SHREVEPORT, LOUISIANA 71106-9089

EDITORIAL

Anachronisms

Admitting to a reminiscence, letting smug youth smirk, I recall an Umbrella Shop hard by the University of Louisville Medical School in the early 1940's. Was it on First Street where now swoops a ramp? Memories outlast masonry. Anyway it existed and not just for umbrella sales either. This shop **repaired** umbrellas, unlikely as it may seem to this discarding, replacing age. Umbrellas were a worthwhile possession. If damaged, they could be repaired and an elderly couple in this simple drab shop would, with pride of workmanship, replace a rib or even a cover and do it at a price that let themselves and the umbrella continue to exist. We'll not see their like till civilization starts round again.

In the 1980's, my disposable umbrella is made by the Asians that we've come to admire and fear, which we did not do in the 40's when we were only at war with them. My 1984 umbrella is smaller, lighter, cleverer, disposable, and much less desirable. I cherish it less, lose it oftener, and replace it from a bin in a "Drug" store. Accordingly, in 1984, one's fingers walk the Yellow Pages in vain; they are innocent of anything to do with umbrellas. Umbrella shops became an anachronism and vanished, but my yearly umbrella cost is higher.

This memory, illuminating little but my incipient dotage, was stirred to life by a visit from a handsome young man of IBM. My dictating machine wouldn't back itself properly and we sought professional service. Well, the machine is too old, too. They've been trying to sell me a newer model for years. The young man was straightforward. "Maybe, but we can't promise anything. It'll be about three hours at \$74.00 per hour plus parts, say, \$300 in round figures." We declined and hastily paid his bill which was cunningly dealt out in decimal increments — .3 hours for travel time, .5 hours for consultation, rounded off to the next highest hour, plus mileage which was amazingly modest at 25¢ per mile. It is, we are told, a technical age, so costly that good things must be discarded rather than repaired.

Well, we could all tell stories of contrast between what was and what is. Cars and home appliances, outboard engines and watches have become like paper towels, to be used briefly and discarded. One is almost tempted to the view that some Titans of Industry even prefer that things be replaced, rather than repaired.

Kodak advertises a camera with a battery that lasts "for the life of the camera." translated as "We made it so you can't get at the battery."

We uneasily contemplate the possibility that all this may have some significance for humans. Another organism, the whooping crane, is about gone, now existing only because governments and good people are trying to bring them back to fecundity. How much should we pay for whooping cranes? How much for people? "Health Care" tycoons vie for the chance to bypass my coronaries at a sobering cost. A new liver for a new baby is a quarter of a million dollars and rising. Dialysis for all who ask is a program of numbing national expense and a tidy profit to investors. In vitro fertilization leaps from a labored technical curiosity over to an expensive standard procedure with great speed. "Health Care Professionals" (translated: non-physician, nonprofessional technicians) too superficially educated to know people or humility, seek through their lobbyists and legislators therapeutic privileges for which they have the most meager qualifications. If money for human repairs were in smaller supply would all this treatment be so selflessly performed? One is forced to the uneasy conclusion that it's all going to cost even more as, in the name of competition and economy, more things become essential. Eventually we may find that life really is not priceless. It is already not priceless for many of us.

One supposes that the current depressed mood of Medicine and its practitioners is somehow related to these ruminations. Physicians watch wistfully as involvement, caring, dedication, commitment and the art of healing are pushed aside by forces that no one understands and no one can control. Will the pendulum swing? Can we count on the general population coming to know good medical care again if they see it? We'll stay tuned because we have no choice and scary changes are in store for us. There are powerful elements that do not wish us well. Perhaps medicine as we've known and loved it is an anachronism, too. It may turn out that the new system, bigger, lighter, cleverer, disposable, and much less durable, won't be must of an advance either.

David L. Stewart, M.D.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary Consult the package literature for prescribing information.

Indications and Usage: Cefclor® (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics including macrolides, semisynthetic penicillins, and cephalosporins; therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: General Precautions—If an allergic reaction to Cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiagglutinin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Cefclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Cefclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one

hour. The effect on nursing infants is not known. Caution should be exercised when Cefclor® (cefclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Cefclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis, arthralgia, and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Cefclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy.

No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

(061782R)

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

hour. The effect on nursing infants is not known. Caution should be exercised when Cefclor® (cefclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Cefclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis, arthralgia, and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Cefclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy.

No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

(061782R)

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother. 8:91, 1975.

2. Antimicrob. Agents Chemother. 11:470, 1977.

3. Antimicrob. Agents Chemother. 13:584, 1978.

4. Antimicrob. Agents Chemother. 12:490, 1977.

5. Current Chemotherapy (edited by W. Segenhaller and R. Luthy), II:880. Washington, D.C.: American Society for Microbiology, 1978.

6. Antimicrob. Agents Chemother. 13:861, 1978.

7. Data on file, Eli Lilly and Company.

8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

© 1982, ELI LILLY AND COMPANY

300035



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

Breast Reconstruction After Mastectomy

EDWARD A. LUCE, M.D. and SHARON ROMM, M.D.

Reconstruction of a breast after it has been removed for cancer is a procedure designed to enhance a patient's damaged self-esteem. With recently described surgical techniques the results can lessen anxiety caused by emotional and physical scars but not increase the risk of recurrent cancer.

One out of every 15 women born in America today will develop cancer of the breast. With emphasis on early detection, more women are treated in the first stages of the disease, producing an increasing number of long term survivors. Women who have had mastectomies suffer both physical and psychological loss. But the plastic surgeon, working closely with the oncologic surgeon, can provide a reasonable facsimile of the missing breast and restore the patient's sense of wholeness and self-esteem.

The Psychological Effect of the Mastectomy Experience

The mastectomy experience is associated with conflicted feelings, more easily resolved by those women with greater inner resources than those on shakier emotional ground. Women who've undergone mastectomy call themselves "birds with broken wings" and "shattered vases which cannot be mended." They see themselves incomplete, somehow less of a woman after surgery. The breast symbolizes femininity, sexuality, and nurturing ability. Viewed in a cultural context, amputation of the breast is interpreted as a loss of womanhood. In addition, some women blame themselves, attributing the development of cancer to their own actions, assuming guilt for things they did or did not do.¹

Plastic surgeons can now offer the option of reconstructing the breast following removal for cancer. Be-

cause of innovative advances in technique, the surgeon can create a reasonable, though by no means perfect, facsimile of the ablated breast. By suggesting reconstruction, the surgeon conveys a sense of hope to the patient. If a woman becomes actively involved in the reconstruction process, she will certainly divert her attention from concerns about ultimate death from cancer and focus on an active future. Reconstruction serves as one element in emotional rehabilitation, providing a convincing demonstration that the surgeon expects a cure.

In Search of Reconstruction

Women seek breast reconstruction for a variety of reasons. Patients resent having to wear a breast substitute in their undergarments. A prosthesis placed under the skin rather than under clothing is easier to incorporate into body image. With an improved self-image, women have greater freedom in choosing clothing, are less self-conscious of their appearance, are more comfortable relating to men, and their enjoyment of sexual activity is increased.

Most patients selecting reconstruction do not learn about the procedure from their physicians but rather from newspaper and magazine articles. It is more usual to hear about surgery from friends and former patients who have had a positive experience.

Questions arise about potential risks associated with reconstruction. Are quiescent tumor cells encouraged to multiply when the wound is disturbed during reconstruction? At the present, there is no evidence to support this theory.

Is a localized chest wall recurrence masked by the reconstructed breast? Women likely to have chest wall recurrence can be identified prior to reconstruction. For example, patients in Columbia Classification stage A (breast mass without skin changes or axillary metastases) the incidence of local recurrence occurring within 10 years of tumor extirpation is 7 to 10%.² The chance

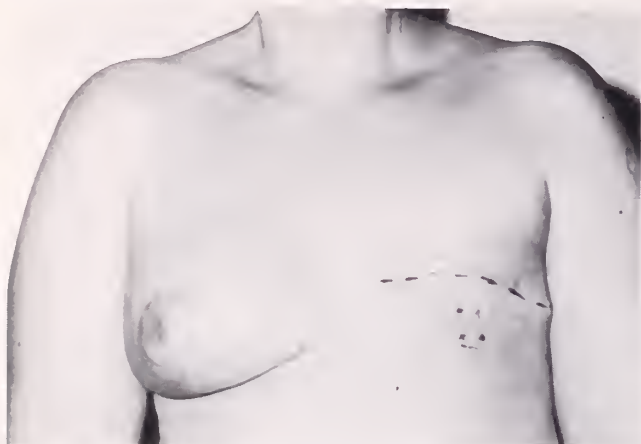


FIG. 1: Transverse incisional scar after a radical mastectomy modified to preserve the pectoralis major muscle.

of chest wall metastases is so low that it is not considered a contraindication to reconstruction. An additional factor used in predicting whose cancer is not completely cured is the number of histologically positive lymph nodes removed during axillary dissection. More than four positive nodes is associated with a 30% chance of recurrence in five years. In any event, once tumor recurs, the outlook is dismal: in one series² half the patients died within one year and only 4% survived five years. Considering this low potential for salvage, whether or not breast reconstruction delays detection of chest wall recurrence is not an issue.

Patient Selection

Many, but not all, patients can be considered candidates for reconstruction after eradication of local disease. Older patients do not usually express interest in reconstruction but age is not an absolute contraindication. For those older women who seek surgery, a restored breast is just as significant as for young or middle-aged women. Radiation damaged skin need not deter the surgeon because current methods allow healthy tissue from the back or abdomen to replace the damaged skin of the chest wall. A patient is a candidate if she is well motivated, understands that she might be subjected to multiple procedures before the new breast is complete, and is prepared to accept complications and setbacks.

Before proceeding with surgery, the patient must acknowledge that reconstruction is entirely her own choice. She must accept that there will be additional scars as well as discomfort. Since some insurance companies do not necessarily cover all costs, she need be prepared to assume financial responsibility. And, above all, she



FIG. 2: Outline of transversely oriented pectoralis major-latissimus dorsi myocutaneous flap. It is constructed as an island and rotated on the neurovascular pedicle.

must understand that the final result may not be perfect.

Timing

The problem of mastectomy and subsequent reconstruction is best approached as a team consisting of the plastic and oncologic surgeons. The patient will benefit if an interview is arranged with the plastic surgeon prior to mastectomy. At this time, plans can be made for reconstruction even though surgery may or may not be performed immediately following cancer extirpation.

Immediate reconstruction is performed by some surgeons and frowned upon by others. By delaying reconstruction, the pathologist has the opportunity to fully examine the specimen so, if indicated, the patient can complete post-operative radiation or chemotherapy before further surgery. The pathologic findings are also useful to predict chest wall recurrence. Some surgeons also feel that the wound is not optimally suited for further manipulation at the time of mastectomy; skin flaps may be ischemic and wide planes of dissection may prevent accurate placement of the prosthesis. In addition, the patient may need time to adjust to loss of her breast and implications of cancer. She may need to make a decision for reconstruction based on her feelings about the deformity; a patient might be more likely to appreciate a less than perfect reconstructed breast if she has had to live for a period of time without any breast at all.

Traditionally, surgeons have felt that reconstruction should be deferred for five years, allowing sufficient time to elapse for recurrence to make itself evident since 90% recurrences appear in this time period.² Be-



FIGS. 3 & 4: Rotation of island latissimus flap and simultaneous implantation of silicone prosthesis. The patient did not elect nipple reconstruction. Mastopexysubcutaneous mastectomy with silicone prosthesis has been performed on opposite breast.

cause reconstructive surgery and local recurrence are not actually related, waiting five years is not necessary and doing so would diminish psychological benefit. Therefore, it is appropriate to begin reconstruction sometime after tissues are readied by the natural course of wound healing: three to four months for most patients and, in those who have received radiation therapy, six months following mastectomy.

Technique

In the past, the technical aspects of breast reconstruction were formidable, requiring the use of distant pedicle flaps, wrist carriers, and even free fat and dermis implantation. Contemporary techniques have markedly simplified the process. To replace missing tissue on the chest wall, muscle and skin are transferred to the unit: the myocutaneous flap. If adequate soft tissue is present, projection of the breast mound is produced by placing a silicone prosthesis underneath the pectoralis muscle. Tight, thin skin absent pectoralis, and presence of an infraclavicular hollow are addressed using a myocutaneous flap. A nipple-areola complex is constructed from skin of the labia or medial thigh. The normal breast can be modified by reduction or mastopexy so that it closely approximates the appearance of the reconstructed breast.³

To supplement deficient soft tissue, a latissimus dorsi myocutaneous flap is used.⁴ This large, flat muscle originates on the thoracic vertebrae and posterior crest of the ilium and inserts on the intertubercular sulcus of the humerus, near the shoulder. This muscle and island of skin supported by blood vessels from the muscle below is dissected free. Carefully preserving its blood and nerve supply, the muscle-skin unit is detached

from its origin and insertion and rotated from the back to the anterior chest wall. A silicone implant placed beneath the flap completes the single stage reconstruction. After the transverse donor area on the back is healed, it is completely covered by a brassiere or bathing suite.

Since removing the patient's own nipple-areola complex and storing it on the abdominal wall is contraindicated, the final stage in reconstruction is creation of a new nipple-areola complex. Either the labia majora, the medial thigh or the opposite nipple-areola may be used as donor tissue. Under the grafted tissue, bits of ear cartilage may be placed to simulate a realistic nipple and Montgomery glands.

The most recent innovation in breast reconstruction is the transverse abdominal island flap. Introduced in 1982 by C. R. Hartramp⁵ et al, this technique increases the surgeon's options. Because of the bulk of tissue transferred, not only is the problem of deficient tissue in the infraclavicular hollow addressed but a silicone prosthesis is unnecessary. The entire breast is made from autogenous tissue. The flap is composed of an ellipse of skin and fat based on one rectus abdominus muscle nourished by the superior epigastric artery. The vascular anatomy of this region has been clearly defined in cadaver dissections and in live patients undergoing abdominal lipectomy. In spite of its large size, the flap, in skilled hands, is predictably reliable.

If both breasts are missing, this technique is useful for bilateral reconstruction. In this procedure, redundant abdominal fat and skin is removed, effecting an abdominoplasty as a bonus. Potential complications are abdominal wall hernia and pneumothorax. Careful

GRAND ROUNDS

planning, optimal orientation of the flap on the chest, and final contouring can produce an excellent result.⁶

Even though the final result of breast reconstruction may not be perfect, performing the procedure can greatly enhance a patient's damaged self-image as a result of mastectomy and not increase her risk of recurrent cancer. With recent advent of new surgical techniques, the results are better and a patient can lessen anxiety caused by emotional and physical scars.

References 1. Renneker R. and Cutler M: Psychological problems of adjustment to cancer of the breasts. *JAMA* 118:833, 1952. 2. Donegan WL and Spratt JS: *Cancer of the Breasts*. 2nd ed. Philadelphia: W.B. Saunders, 1979. pp 488-501. 3. Cronin TD, Upton J, and McDonough JM: Reconstruction of the breasts after Mastectomy. *Plast Reconstr Surg* 59:1, 1977. 4. Bostwick J, Vasconez LO, Jurkiewicz MJ: Breast reconstruction after radical mastectomy. *Plast Reconstr Surg* 61:682, 1978. 5. Hartramp CR, Schefflan and Black PW: Breast Reconstruction with a Transverse Abdominal Island Flap. *Plast Reconstr Surg* 69:216, 1982. 6. Elliott LF and Hartramfs CR: Tailoring of the New Breast using the Transverse Abdominal Island Flap. *Plast Reconstr Surg* 72:887, 1983.

*From the University of Kentucky, Division of Plastic Surgery,
800 Rose Street, Lexington, Kentucky 40536*

**as one physician
to another. . .**



**“Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?”**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company · P.O. Box 35880 Louisville, Ky. 40232
TOLL FREE 1-800-292-1858 · Louisville Area 459-3400

BE IN HARMONY



join
the
auxiliary
to
Kentucky
medical
association

Contact state membership chairman for details:
Mrs. (J. Roger) Pam Potter (606) 324-5015
506 Franklin Court , Ashland , Ky. 41101

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

Upjohn



Ad
Council

Photo: Peter B. Kaplan

If you still believe in me, save me.

For nearly a hundred years, the Statue of Liberty has been America's most powerful symbol of freedom and hope. Today the corrosive action of almost a century of weather and salt air has eaten away at the iron framework; etched holes in the copper exterior.

On Ellis Island, where the ancestors of nearly half of all Americans first stepped onto American soil, the Immigration Center is now a hollow ruin.

Inspiring plans have been developed to restore the Statue and to create on Ellis Island a permanent museum celebrating the ethnic diversity of this country of immigrants. But unless restoration is begun now, these two landmarks in our nation's heritage could be closed at the very time America is celebrating their hundredth anniversaries. The 230 million dollars needed to carry out the work is needed now.

All of the money must come from private donations; the federal government is not raising the funds. This is consistent with the Statue's origins. The French people paid for its creation themselves. And America's businesses spearheaded the public contributions that were needed for its construction and for the pedestal.

The torch of liberty is everyone's to cherish. Could we hold up our heads as Americans if we allowed the time to come when she can no longer hold up hers?

Opportunities for Your Company.



You are invited to learn more about the advantages of corporate sponsorship during the nationwide promotions surrounding the restoration project. Write on your letterhead to: The Statue of Liberty-Ellis Island Foundation, Inc., 101 Park Ave, N.Y., N.Y. 10178.



**KEEP
THE
TORCH
LIT**

Save these monuments. Send your personal tax deductible donation to: P.O. Box 1986, New York, NY 10018. **The Statue of Liberty-Ellis Island Foundation, Inc.**

STATUE OF LIBERTY—ELLIS ISLAND CENTENNIAL CAMPAIGN

BUSINESS PRESS AD NO. SOL-1603-83—7" x 10" (110 Screen)

Volunteer Agency: Kenyon & Eckhardt, Inc. Volunteer Coordinator: Sharon E. Baum, Chemical Bank

**BP-SPEC
1983**

Application for Scientific Exhibits

1984 Annual Meeting

Kentucky Medical Association

Hyatt Regency/Lexington Center

Lexington, Kentucky

September 18, 19, 20

1. Title of exhibit _____
2. Name(s) of exhibitor(s) _____
Address _____
Professional title _____
3. Institution if other than exhibitor _____
4. Amount of backwall footage required _____
(The draped booth has 4' side walls. This footage should not be included in backwall footage required.)
SHELF DESIRED? _____ (Table 2' deep X width of backwall footage) Electrical outlet desired _____
5. Will summary printed matter be available or obtainable for the interested physician? _____
6. Indicate sources of assistance provided to you in connection with this exhibit _____

7. Has this exhibit been displayed before? If so, when & where? _____

8. It is required that you attach a rough sketch or photograph and a brief outline of your exhibit to include: (a) content of the presentation, and (b) the method, eg., equipment to be used.

Date _____

Signature of Applicant _____

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Committee
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

The Kentucky Medical Association welcomes and supports scientific exhibits as a facet of continuing postgraduate education.

Applications for space should be received before June 1, 1984.

- KMA provides, without cost to the exhibitor, one 2 ft. Table as shelving, bracket lights and a title sign.
- Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the George E. Fern Company, 328 Louisville Air Park, Louisville, Kentucky 40213.
- *Commercial* exhibit materials and handouts are prohibited in the Scientific Exhibit area.
- Transportation and erection costs are the responsibility of the exhibitor.
- Exhibit *must be attended* during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.
- Equipment which will create noise must not be used during the general sessions and, at other times, must be controlled by head or earphones or a muffling device.
- Exhibit must be dismantled and removed by 4:00 P.M., Thursday, September 20, 1984.
- Exhibit space is *strictly limited* to footage and space allotted. *No* exhibit may extend into the aisle.
- The Lexington Convention Center and the Kentucky Medical Association or its agents cannot guarantee against loss or damage and will assume no liability for damages nor guarantee the exhibitor against loss of any kind. The exhibitor agrees, with the Association, to be responsible to the Lexington Convention Center for damages that may occur as a result of the exhibitor's use of the facility.

ACCREDITATION

KAFP allows one credit hour for each hour of participation and presentation of scientific exhibits up to 15 hours. AMA allows up to 10 hours for AMA Category I credit.

Donald C. Barton, M.D. Chairman of the Board

It is always easy to indiscriminately throw blame in all directions rather than confront an issue to find the core of the matter. Given the complexities of modern medicine, everyone from physicians and patients to the state and federal government has been guilty of this at some time.

Everyone claims to have the same goal — quality care at a reasonable cost. But somewhere along the way this goal becomes obscured by the contradictory methods being proposed as solutions.

One of the key players in the health care controversy is Donald C. Barton, M.D., Chairman of the KMA Board of Trustees. Doctor Barton has extensive experience in organized medicine, having served as KMA Trustee since 1978; President of the Whitley County Medical Society; KEMPAC Chairman from 1975-1977; KMA Delegate from 1977-1979 and now serving as AMA Delegate.

Health care costs is an issue to everyone, Doctor Barton believes, but not to the extent promoted by the

media. "The number one issue is health care cost and it is an issue that will have to be confronted by physicians and the public. Medical costs are high, but this is a many faceted issue and I'm not convinced that most of medicine isn't worth this price. It's more a matter of priorities. The number one issue should be quality care, with cost secondary."

Each new Board Chairman is faced with a collection of problems that seems to haunt the medical profession year after year. This sometimes makes it difficult to maintain a leadership position as opposed to a defensive position. Doctor Barton believes that the KMA Board has not only responded to problems, but has set precedents in preventing them. "Last year we participated in the Governor's Cost Containment Coalition and were effective in our effort to reduce the lengths of hospital stays. This is an area in which we had a direct impact on cost reduction."

Taking a defensive position though, is often the only option left to KMA, explains Doctor Barton. "Realistically, we will always have to be on the defense because there are so many people trying to make inroads into medicine."

Being a part of organized medicine is not always dealing with frustrating situations. There are rewards, as is evident from the high caliber of physicians who donate their time to KMA. Soft-spoken, with a distinctive eastern Kentucky speech pattern, Doctor Barton praises the work of the Board of Trustees. "We're all working for the same goals. The members are knowledgeable, hardworking and responsible to their constituents. When there are dissenting opinions we work together and discuss them and eventually reach a unanimous decision."

Aside from the officers of KMA, Doctor Barton stresses the importance of general membership in KMA. "I'm not sure that Kentucky physicians are aware of the dramatic increase in the number of benefits available to



PROFILE

them. The KMIC and KMA Insurance Agency, our Credit Union and recently the development of the computer company, are all great additions and were accomplished without using membership dues." In addition to everything else KMA does, these are direct, tangible benefits."

Doctor Barton has been a family practitioner in Corbin, Kentucky for 23 years. "I never really wanted to do anything but be a family practitioner, so I guess I had my heart set on going back to Corbin. I had an uncle there who loaned me money to go through college and medical school and my goal was to get back and practice with him, and I'm very happy I did."

Doctor Barton met his wife, Joan Much Barton, while he was attending the University of Louisville. Mrs. Barton works part-time in the office of her husband and her husband's brother, Doctor P. Bruce Barton. Doctor and Mrs. Barton have three daughters and one son. Their oldest, Donna Hudson, is vice-president in charge of loans at a savings and loan association in Charlotte, North Carolina, where she lives with her husband and two children. Their second daughter, Rebeca Myers, a C.P.A. with Potter and Company in Corbin, is married to Dennis, a Ford dealer in Corbin. They have one child. Toni Alton, the Barton's third daughter, is an accountant and lives in Somerset with her husband John, who owns and operates an auto body shop. They have two children. David, the Barton's youngest, is a junior at the University of Alabama, majoring in computer sciences.

The future of medicine will require efforts from physicians who want to maintain control of their professional lives. Doctor Barton is straightforward in expressing his belief in the power of physicians as a group. "It is sad that only 10% of Kentucky physicians are KEMPAC members. With the support of this 10% KMA wields considerable influence. Just think what we could accomplish with 100%. I'm not just talking about paying dues, but getting involved, knowing your Senators and Representatives. Another disappointing fact is that the AMA has only half of the physician population as members and the AMA is *the* voice for medicine. No physician has the right to sit on the sidelines and complain. This will accomplish nothing."

Doctor Barton's term as Chairman of the Board of Trustees expires in September and he plans to devote his time to service as AMA Delegate. "I'm very interested in this position and looking forward to next year

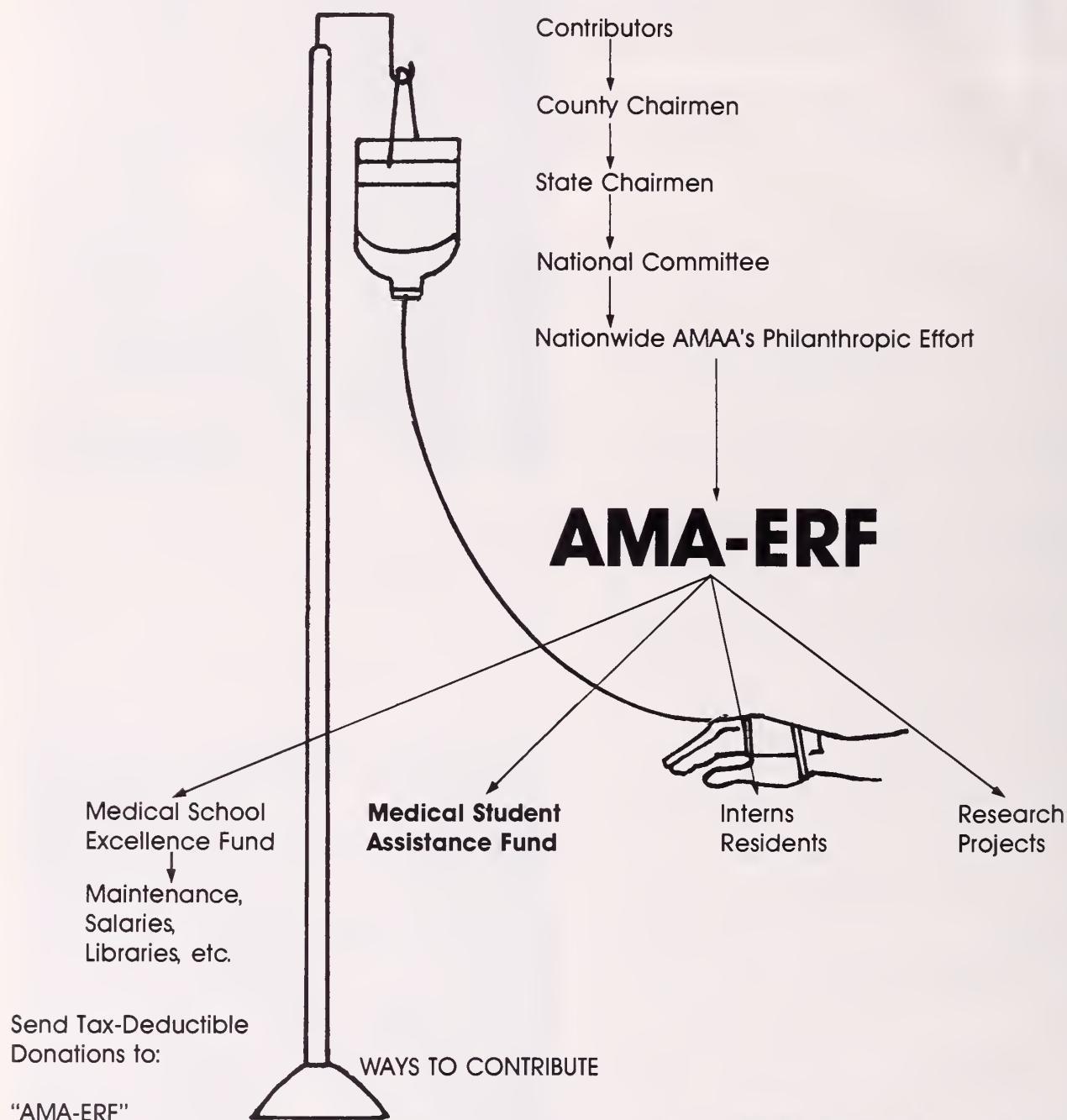


in that role. It is an honor to be Chairman of the Board now. It does require considerable time, but I like it. I have to be involved and hope to be for many years to come."

Text and photos by Donna M. Young



This is the Life-line Of
American Medical Association Education and Research Foundation



Send Tax-Deductible
Donations to:

"AMA-ERF"
c/o Mrs. Aroona Dave
807 Shamrock Drive
Madisonville, KY 42431
OR

Ann Ferguson
AMAA Inc.
535 N. Dearborn St.
Chicago, ILL 60610

194

- 1 **Direct contribution to your own Medical School or Medical Student Assistance Fund** anywhere in the United States through this Auxiliary.
- 2 Buying Christmas cards from your Auxiliary Chairman. Auxiliary receives sales commissions of 40% to 50% of all orders.
- 3 Supporting Auxiliary's fund raisers for AMA-ERF. We are asking 100% participation.
- 4 Giving Donations for occasion card, pamphlets, notepaper memo and telephone pads, etc. Available from your chairman.

Journal of the Kentucky Medical Association

Auxiliary

AKMA LEADERSHIP CONFERENCE EASTERN KENTUCKY UNIVERSITY RICHMOND, KENTUCKY APRIL 18, 1984

9:30 AM	Back to Basics Table Discussions Each discussion will be repeated three times with participants rotating from table to table (40 mins. each)	
	AMAERF	Phyllis Cronin
	Ronald McDonald Houses	Cheryl Houston
	Membership	Pam Potter
	Dues Collection	Martha Jenkins
	Parliamentary Procedure	Helen Kinsman
	Bylaws	Carol Franks
	McDowell House	Dorothy Rush
	Reporting	Janie Smith
	Health Projects	Sylvia Davis
	slide presentation of a drug program for elementary schools	
	CPR	Pam Kelly
	International Book Project	Phyllis Yates
	Project Bank and People Bank	Dot Baumgarten
12:00 PM	Luncheon	
1:00 PM	Speaker.....	"The Impaired Physician" Gordon L Hyde, M.D. Lexington



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

Endorsed by the
Kentucky Medical Association



AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515

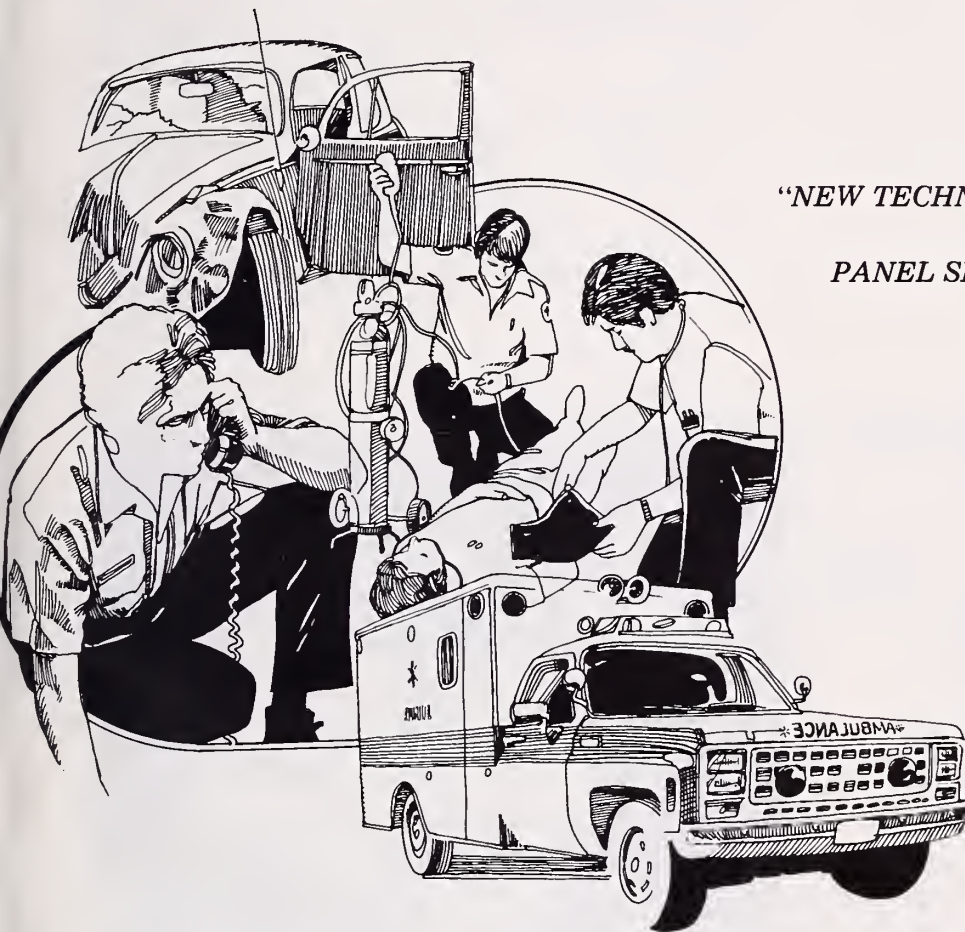
Toll-free outside Ohio, 1-800-742-1275

ASSOCIATION

KENTUCKY MEDICAL ASSOCIATION

Executive West Motel

June 5-7, 1984



"NEW TECHNIQUES IN MYOCARDIAL DISEASE"

PANEL SESSIONS AND DISCUSSION GROUPS

"DILEMMAS IN HEENT TRAUMA"

MANUAL SKILLS WORKSHOPS

*THE 9th ANNUAL
AMBULANCE COMPETITION*

"DILEMMAS IN TRAUMA"

ACLS PROGRAM

14th Annual EMERGENCY MEDICAL CARE SEMINAR

FOR REGISTRATION INFORMATION

CONTACT: KENTUCKY MEDICAL ASSOCIATION
3532 Ephraim McDowell Drive
Louisville, KY 40205
(502) 459-9790

REGISTRATION FEE

KMA Members, Nurses, EMT's, Paramedics, Dentists . . \$20.00 a day
Non-KMA Member Physicians \$40.00 a day
ACLS Program Fee Limited to 30 Attendees \$75.00

Patient referrals: good service is in the cards.

A referring physician can help his or her patients get better appointment service from a consulting physician, simply by giving those patients the consultant's card.

Just keep a supply of appointment cards from associates in various specialties at the front desk and/or nursing station. When a referral is made, hand the patient a card with instructions to, " . . . call this number for an appointment." If the case is urgent, or if the receptionist has time, she can provide an extra service by making the appointment for the patient on the spot.

And where do all these appointment cards come from? Many consulting physicians will be happy to provide them to area GPs, FPs and other primary care practices. These cards can be made more useful by having special instructions printed on them and by having a space where the referring physician can write or stamp his or her name.

Reprinted from "The Doctor's Office," No. 20, Jan. 1984.

**General Leasing
Company of Kentucky**

Professional Transportation Management

**We administer your
physician's lease plan.**

We lease all makes —
everywhere.



121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383

A black and white photograph of a hand holding several playing cards. The cards shown are the 10 of Spades, the Queen of Spades, the King of Spades, and the Ace of Spades. The Ace of Spades prominently features the "ICA" logo. In the background, a small card with the text "YOUR Independent AGENT" is visible.

**Our
Agents
Deal You**

**the
Best Hand.**

Choosing professional liability insurance should not be a gamble. Call 1-800-231-2615 for the name of your nearest independent agent; in Texas, 1-800-392-9702.

ICA
The Preferred Underwriter

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its *Manual on Alcoholism* points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

The 35th annual meeting of the Kentucky Surgical Society will be held on May 18-19, 1984 at the Executive Inn, One Executive Boulevard, Owensboro, Kentucky. The guest speaker will be John Sawyers, M.D., Chairman, Department of Surgery at the Vanderbilt University Hospital in Nashville, Tennessee. Dr. Sawyers will speak on "Surgery of the Gastrointestinal Tract".

ENJOY THE BENEFITS OF MULTI- SPECIALTY PRACTICE

**Attractive positions available in our
Health Maintenance Organization in
the specialties of:**

**INTERNAL MEDICINE
FAMILY PRACTICE
PSYCHIATRY
PEDIATRICS**

**Opportunities available in the Louis-
ville and Lexington areas for quali-
fied physicians. Competitive salary
and excellent fringe benefits. For fur-
ther information, please contact:**

**Medical Director
HEALTHCARE OF LOUISVILLE, INC.
P. O. Box 34098
Louisville, Kentucky 40232
(502) 456-8117**

CHANGING ADDRESS?

**Please let us know at least
two months before chang-
ing your address.**

Send new address to:

**Journal of the Kentucky
Medical Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205**

NEED A SPEAKER? . . .

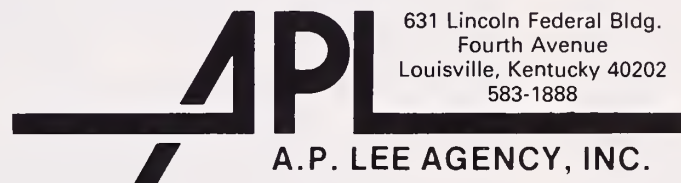
**for your next hospital
staff, county society or
other meeting?**

**Contact the KMA
Committee on Impaired
Physicians.**

(502) 459-9790

IF YOU CALL US, WE WON'T CALL YOU —
and interrupt your busy day to tell you about
the new disability income coverage!

If you haven't evaluated your disability income coverage lately, you may want to do so in the next few months when you've received information about our new, more realistic monthly benefits, "your occupation," individual coverage at lower group rates.



631 Lincoln Federal Bldg.
Fourth Avenue
Louisville, Kentucky 40202
583-1888



SPECTRUM EMERGENCY CARE, Inc.
EMERGENCY MEDICINE

Part-time and full-time positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (8-60 hour shifts). For details write or call:

Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214

1-800-848-2938 / 614-457-9761

All inquiries will be kept confidential

1984 CME Cruise/Conferences on Legal-Medical Issues



APPROVED FOR
18-24 CME CREDITS
CATEGORY 1
By the Suffolk Academy
of Medicine

The programs listed below were scheduled prior to 12/31/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act - P.L. 94-445, effective 1/1/77, with the exception of the Hawaiian Conference, which conforms to the requirements of P.L. 97-424.

- | | |
|---|--|
| * January 7-18 (from Ft. Lauderdale, FL)
11 Day Caribbean | * June 30-July 14 (from San Francisco, CA)
14 Day Alaskan |
| * April 14-21 (from Los Angeles, CA)
7 Day Mexican Riviera | * July 25-Aug. 4 (from Ft. Lauderdale, FL)
10 Day Caribbean |
| May 19-26 (from Honolulu, HI)
7 Day Hawaiian | Aug. 11-25 (from Venice, Italy)
14 Day Mediterranean |

***FLY ROUNDTRIP FREE**
EXCELLENT GROUP FARES — FINEST SHIPS

The number of participants in each conference is limited
Early registration is advised

For color brochure
and additional
information contact

International Conferences
189 Lodge Ave.
Huntington Station, N.Y. 11746
Phone (516) 549-0869

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

FOR SALE

FOR SALE OR LEASE—1958 Westinghouse Radiographic/Fluoroscopic X-Ray Unit, 300 MA, 130 K.V. with Image Intensified, complete with all Rails, weights, transformer and table with Reciprocating Bucky. Recent new tube. Excellent for Doctor's Office or Clinic. \$4,995.00 Contact W. L. Miller, M.D. (502) 338-0331

FOR SALE Well established Internal Medicine practice. Grossed \$154,000 in 1983. Will sell all fixtures, furniture etc. Contact Gerald Psimer, 2533 Larkin Road, Lexington, KY 40503.

Hilton Head Vacation Villa Palmetto Dunes—New professionally decorated two bedroom/two bath villa/full kitchen and laundry. Directly on 15th tee of Fazio. Private pool, tennis, near ocean and Shelter Cove Harbor. Dennis R. Molony, M.D., 18 North Fort Thomas Avenue, Fort Thomas KY 41075 (606) 781-5020

MEDICAL OPPORTUNITY

DIAGNOSTIC RADIOLOGIST—Board eligible or certified. Progressive community hospital has added a new wing including an ultra-modern radiology suite. Lovely college town only 45 minutes from Lexington, KY. Excellent opportunity. Send CV to Berea Hospital, Box 128, Berea, KY 40403. (606) 986-3151, ext. 535.

ORTHOPEDIC SURGEON—Board eligible or certified. Recent expansion program includes now orthopedic suite. Beautiful college town in central Kentucky. Excellent opportunity and benefits. Send CV to Berea Hospital, Box 128, Berea, KY 40403. (606) 986-3151, ext. 535.

GENERAL SURGEON—Board Eligible or certified with vascular and thoracic experience. Practice in a small college community in a beautiful new facility. Located in central Kentucky. Can be a solo or possible partnership practice with excellent benefits. Submit CV to Berea Hospital, Box 128, Berea, KY 40403. (606) 986-3151, ext. 535.

ACTIVELY SEEKING OB/GYN & ORTHOPEDIC to join multi-specialty group. Modern well equipped clinic located in beautiful Western Kentucky. Accessible to metropolitan areas such as Nashville, Memphis, Louisville and St. Louis. Guaranteed income the first year, above average benefits, profit sharing. Partnership possible after first year. Send CV to Robert D. Fields, M.D., 220 West Walnut St., Mayfield, Kentucky 42066.

WANTED—Family Physician to join two physician family practice in Western Kentucky town of 8,000. Fully equipped modern office located next to 60 bed hospital. Send resume to: Ralph Cash, Jr., M.D., P.O. Box 627, Princeton, KY 42445.

INTERNAL MEDICINE PRACTICE AVAILABLE

A general internal medicine practice located about 40 miles south of Lexington, KY is available July 1, 1984. Practice is primarily geared towards general internal medicine although Seller reads cardiograms for hospital along with other internists in town. This also would transfer to Buyer. Seller is willing to work on a part-time basis for several months to assure smooth transition. For more information, call Dorothy Sweeney or Edward Stroger at The Health Care Group 215-667-8630.

Seminar of Health Professionals

May 19, 1984

Porter Memorial Baptist Church
4300 Nicholasville Road
Lexington, Kentucky

GUEST SPEAKERS:

Lawrence M. Gartner, M.D., Professor and Chairman, Department of Pediatrics, Pritzker School of Medicine, University of Chicago

Nema Desai, M.D., Associate Director Neonatal Intensive Care Unit, University of Kentucky Medical Center

Kate Y. Bryant, R.N., B.S.N, Director of Human Milk Bank, Central Baptist Hospital

TOPICS Include:

The Jaundice Controversy, Slow Weight Gain/Failure to Thrive, Update on Breastfeeding Research

PHYSICIANS: Program approved by the KMA and Accreditation Council for Continuing Education for 4 Hours of Category I Credit.

NURSES: Program approved by the Kentucky Board of Nursing for 6 Contact Hours.

FOR REGISTRATION CONTACT: Doctor Susan Walmer, Eastern State Hospital,
627 W. 4th Street, Lexington, KY 40508

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵ ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY CONFIRMED BY EXPERIENCE **DALMANE**[®] flurazepam HCl/Roche


THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights²⁻⁴
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE[®]
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE[®] 
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.


Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

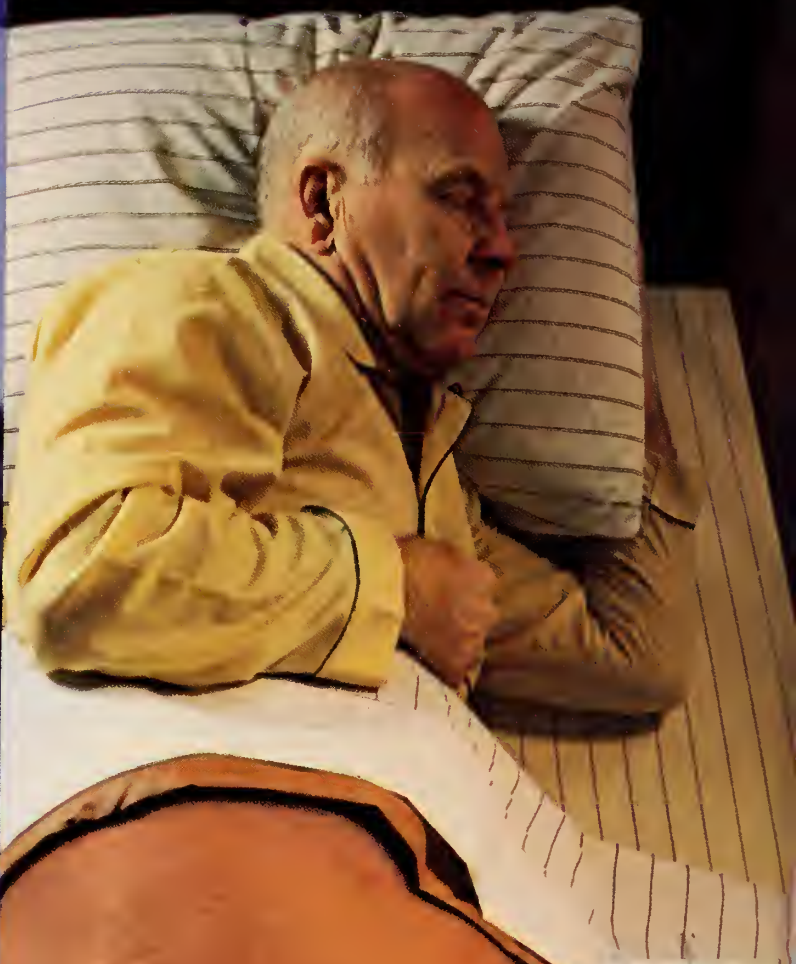
Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

 Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]

flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES



Library of SUB
College of Phys. of Phil.
19 South 22nd St.
Philadelphia, PA 19103

STACKS JOURNAL OF THE

Kentucky Medical

ASSOCIATION

14th Annual Emergency Medical Care Seminar

June 5-7, 1984



LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA
MAY 22 1984

Library of
SUB
College of Phys. of Phil.
19 South 22nd St.
Philadelphia, PA 19103

The Preferred Underwriter

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 5

May 1984

SCIENTIFIC

Testicular Seminoma

Baby Jose, M.D., Lee P. Perkins, M.D. and Howard Kays, M.D. 213

Therapeutic Gastroenterology

*Stanley B. Benjamin, M.D., Richard A. Wright, M.D. and
Richard N. Redinger, M.D.* 215

Malignant Skin Tumors Presenting As Seborrheic Keratosis

*Steven J. Hodge, M.D., Michael D. John, M.D.
and Gordon B. Newell, M.D.* 221

Gastroduodenal Crohn's Disease

*Bill Hoagland, M.D., T. Jeffery Wieman, M.D.
and Eugene H. Shively, M.D., FACS* 224

EDITORIAL

Breast Cancer and Normal Mammograms 233

SPECIAL ARTICLES

The Physician and the Right to Health Care 235

ASSOCIATION

Emergency Medical Care Seminar Program 245

REGULAR FEATURES

President's Page 211

Book Reviews 241

Members in the News 249

In Memoriam 250

Postgraduate Page 251

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific; Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign, (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40501 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40103 (606) 986-2323	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145.....	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-1147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-1900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1986
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 516-3021.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6113	1984

Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6172	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 681-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elktown 42220 (502) 265-2571	1986
4th.....	THOMAS R. TAYLOR, M.D., 911 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th.....	BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111.....	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40312 (502) 839-6981.....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3718	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40321 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1984
12th.....	DANNY M. CLARK, M.D., 101 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 321-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

MAY BUYERS' GUIDE FOR *JOURNAL OF KMA*

Campbell Laboratories	242
Classified.....	252
General Leasing Corporation	252
E.F. Hutton	209
Insurance Corp of America.....	206
KMA Insurance Agency, Inc.	231,213
KMCO.....	244
KMIC	210

A.P. Lee Agency, Inc.....	248
Eli Lilly & Company	240
Medical Protective Co.....	239
Pfizer Laboratories.....	230,231
Postgraduate Medicine	238
Roche Laboratories	228,229,230,253,254
Spectrum Emergency Care.....	251
The Upjohn Co.	232

E. F. Hutton on Personal Financial Management

A FINANCIAL PLAN FOR PEOPLE WHO ARE ALREADY WEALTHY AND SUCCESSFUL.



You are at the top of your profession. Now let Hutton's Personal Financial Management Department, working with your advisors, forge an orderly, secure financial future for you. Create one comprehensive program to increase your net worth and retirement income, cut income and estate taxes. Isn't that what your hard work is all about?

Investment opportunities proliferate. Tax laws change with astonishing rapidity and become ever more complex.

Meanwhile, you pour your own energy into your career. You earn more than \$125,000 a year or your net worth is more than one million dollars. It's time for E. F. Hutton's Personal Financial Management (PFM) Department to plan a comprehensive financial future for you.

We divide your future into three

parts. To allow you to live as well as you want to now. To plan for your retirement. To protect your estate from taxes.

To accomplish these goals, we confer and coordinate with your present advisors. We interview you personally and in depth. We prepare a report about your finances that will probably be more than 100 pages long.

If you elect, the Personal Financial Management Department can

assist you in implementing the plan's recommendations and can provide you with individually tailored investment programs. And the plan is updated and changed as time goes by and circumstances change.

A sophisticated financial blueprint like this requires specialized knowledge and consistent follow-through. Personal Financial Management is administered by skilled consultants who understand personal financial needs and goals. They provide professional guidance not only in money management, but also in related professional disciplines. And they provide continuity through ongoing guidance. The fee is 90% tax deductible.

To get more information fill in the coupon or call 231-9537.

☐ Please send me your booklet entitled, "Personal Financial Management."

☐ Please arrange for a meeting with an E. F. Hutton Account Executive.

Name _____

Address _____

City _____

State _____

Zip _____

Business Phone _____

Home Phone _____

My E. F. Hutton Account Number is _____

E. F. Hutton

E. F. Hutton & Company Inc.

300 E. Main St., Lexington, KY 40507
Attn: Harry Hadden, V.P.

Member SIPC

When E. F. Hutton talks, people listen.



**as one physician
to another. . .**



**"Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?"**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company • P.O. Box 35880 Louisville, Ky. 40232

TOLL FREE 1-800-292-1858 • Louisville Area 459-3400

PRESIDENT'S PAGE



1984 Is Here

George Orwell's now famous description of an autocratically regimented society has become the classic example of extreme government repression. Cryptically, the 1984 that George Orwell wrote of is now upon us chronologically, and in some ways, the repression he noted also abounds.

In mid-April, the U.S. House of Representatives, fortunately, cast a resounding "no" vote against mandatory acceptance of Medicare assignment by physicians, a portion of H.R. 5394. In doing so, this body decried the oppression that has become a trend with governments at all levels. The precedents of the vote included over a year's hard, intense labor on the part of officers, key men, staff and lobbyists at all levels of the Federation. The point to be made here is that the government repression addressed by Orwell was suc-

cessful, applied to a submissive society. **Our** Federation is obviously far from submissive, and the list of AMA and KMA activities on numerous occasions in every facet of the legislative arena is quite long, but this is only one arena where our organizations work for us.

Our Federation has only 10% active participants. I am referring to sustaining KEMPAC and AMPAC members. I think it is safe to make the comparison between the successful vote on H.R. 5394 with only 10% active participation by members, with what we could accomplish if all physicians and their families joined this movement. At the state level, KMA has just completed one of its most successful legislative efforts in the Kentucky General Assembly. The magnitude of this success is compounded by the fact that, again, officers, key men and staff worked so diligently and effectively against forces that are relatively more powerful on the state level than the national.

Everyone is probably fatigued from hearing constant exhortations about "what's going to happen to us." A hard realism is that "it" is happening to us now, in 1984. This is not exhortation, it is a simple statement of fact.

I never cease to be amazed and gratified with the successes, however limited they might appear to be, that we do have. This attests not only to the work, but the talents of the individuals involved, and such talent can never be discounted. At the same time, a few dedicated individuals cannot carry a burden for the entire membership. It seems quite clear that the membership must participate if it has any intention of adequately confronting the repression which continues. 1984 is here.

Fred C. Rainey, M.D.
AMA Delegate

Application for Scientific Exhibits

1984 Annual Meeting

Kentucky Medical Association

Hyatt Regency/Lexington Center

Lexington, Kentucky

September 18, 19, 20

1. Title of exhibit _____
2. Name(s) of exhibitor(s) _____
Address _____
Professional title _____
3. Institution if other than exhibitor _____
4. Amount of backwall footage required _____
(The draped booth has 4' side walls. This footage should not be included in backwall footage required.)
SHELF DESIRED? _____ (Table 2' deep X width of backwall footage) Electrical outlet desired _____
5. Will summary printed matter be available or obtainable for the interested physician? _____
6. Indicate sources of assistance provided to you in connection with this exhibit _____

7. Has this exhibit been displayed before? If so, when & where? _____

8. It is required that you attach a rough sketch or photograph and a brief outline of your exhibit to include: (a) content of the presentation, and (b) the method, eg., equipment to be used.

Date _____

Signature of Applicant _____

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Committee
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

The Kentucky Medical Association welcomes and supports scientific exhibits as a facet of continuing postgraduate education.

Applications for space should be received before June 1, 1984.

- KMA provides, without cost to the exhibitor, one 2 ft. Table as shelving, bracket lights and a title sign.
- Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the George E. Fern Company, 328 Louisville Air Park, Louisville, Kentucky 40213.
- *Commercial* exhibit materials and handouts are prohibited in the Scientific Exhibit area.
- Transportation and erection costs are the responsibility of the exhibitor.
- Exhibit *must be attended* during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.
- Equipment which will create noise must not be used during the general sessions and, at other times, must be controlled by head or earphones or a muffling device.
- Exhibit must be dismantled and removed by 4:00 P.M., Thursday, September 20, 1984.
- Exhibit space is *strictly limited* to footage and space allotted. No exhibit may extend into the aisle.
- The Lexington Convention Center and the Kentucky Medical Association or its agents cannot guarantee against loss or damage and will assume no liability for damages nor guarantee the exhibitor against loss of any kind. The exhibitor agrees, with the Association, to be responsible to the Lexington Convention Center for damages that may occur as a result of the exhibitor's use of the facility.

ACCREDITATION

KAFP allows one credit hour for each hour of participation and presentation of scientific exhibits up to 15 hours. AMA allows up to 10 hours for AMA Category I credit.

Testicular Seminoma

BABY JOSE, M.D., LEE P. PERKINS, M.D. AND HOWARD KAYS, M.D.

This paper is a review of 74 patients with a diagnosis of seminoma of the testis, treated at the Department of Radiation Oncology, University of Louisville, Louisville, Kentucky from 1959-1978. Sixty-four patients (86%) were classified as classical seminoma, eight patients (11%) as anaplastic and two (3%) patients as spermatocytic type. The age range in this study is 16-75 years with a median of 39. Sixty-two patients (84%) presented with testicular swelling or mass. Thirty-eight patients had the tumor on the left side and 36 patients on the right. All Stage I pure and spermatocytic seminoma (44) patients received infradiaphragmatic irradiation by a "hockey stick" field up to a dose of 3200 to 3600 rad in three-four weeks time. The five-year actual survival rate in this group of patients is 96%. There is no advantage of giving elective irradiation to the mediastinum and neck region in this group of patients. All Stage II pure and spermatocytic seminoma patients (30) were treated with elective irradiation to the mediastinum and neck region in addition to the infradiaphragmatic irradiation. The five-year actuarial survival in this group of patients is 92%. Of the eight patients with anaplastic seminomas, seven patients are doing well, with a median survival of 45.5 months. No severe complication is seen during the follow-up. A brief review of the literature is also done in this study.

Department of Radiation Oncology, University of Louisville, will be discussed.

Epidemiology

The incidence of testicular neoplasms in U.S. is 2.1-2.2 per 100,000 males. The United States Census Bureau attributed 0.64% of all male cancer deaths to testicular neoplasms.¹

Etiology

There seems to be an increased incidence of testicular tumors in the atrophic testicle. Testicular tumors are found 10-14 times greater in patients with cryptorchid testis compared to normally descended testis.² Maier *et al*³ have reported an incidence of 7% of cryptorchidism in their study of seminomas. In our study 8% (6/74) of patients had a history of undescended testicles.

Pathology

Seminoma is composed of large uniform cells with clear cytoplasm. There are three different pathological subtypes of seminomas:

1. Typical or classical seminoma.
2. Anaplastic seminoma.
3. Spermatocytic seminoma.

In this study, 64 patients (86%) were classified as classical seminoma, eight patients (11%) as anaplastic and two (3%) patients as spermatocytic type.

Clinical Features

These tumors affect young males. The age range in this study group of patients is 16-75 years with a median of 39. The most common clinical finding is a painless testicular swelling. Sixty-two patients (84%) in this study presented with swelling or mass, seven patients with pain, one patient with hydrocele and four patients had seminoma diagnosed incidentally. Thirty-eight patients had the tumor on left side and 36 patients on the right.

Staging

All the patients were staged after orchiectomy, based on the staging system as shown in Table I. The work-

Germinal cell neoplasms of the testis account for less than 1% of all male malignancies. About 40% of these tumors are pure seminomas. Since relatively young patients with potentially long survival are affected with seminomas, a thorough understanding of the disease is essential for proper evaluation and management. The purpose of this article is to review the management of testicular seminomas. Results of treatment of 74 patients of Stages I and II seminomas with radiotherapy following orchiectomy during 1959-1978 at the
May 1984

up included routine blood studies, chest x-ray, intravenous pyelogram and bipedal lymphogram. Forty-four patients (59%) were staged as Stage I and 30 patients (41%) as Stage II.

Treatment

The irradiation techniques have been consistent during the review period. All Stage I patients were treated with an anterior and posterior "hockey stick" type field using megavoltage equipments to the ipsilateral inguinal, iliac and bilateral para-aortic lymphnodes. Majority of the patients received a midplane dose of 3200 to 3600 rad in three to four weeks time. None of the Stage I patients received elective irradiation to the mediastinum and neck areas. All Stage II patients received elective irradiation to the mediastinum and neck areas, in addition to the infradiaphragmatic irradiation. The most commonly used dose was 3000 to 3400 rad in three to four weeks time.

Results

Classical and spermatocytic type: The five year actuarial survival rates of Stages I and II of these tumors were 96% and 92% respectively. One patient died in each stage group. One patient in Stage I group failed in the mediastinum, who was salvaged with irradiation. One Stage II patient developed recurrence in the abdomen and was treated with irradiation and chemotherapy. The median follow-up in this study is five years.

Anaplastic type: Of the eight patients with anaplastic seminomas, one patient was lost for follow-up and of the rest, seven patients were doing well. The median survival of this group of patients was 45.5 months.

No severe complications were observed in any of the patients. One patient developed a lung cancer and another patient had a submaxillary salivary cancer on follow-up.

Discussion

Our experience with classical seminomas concurs with the reported results in the literature.^{4,9} Analysis of this study agrees with the recommendation that prophylactic irradiation to the mediastinum and neck is not necessary in Stage I disease.^{1,5,8} In Stage II patients, standard treatment has been to irradiate the infradiaphragmatic nodes, followed by elective irradiation to mediastinum and neck. There have been recent attempts to classify Stage II patients into two subgroups, A—minimal retroperitoneal disease, B—large tumor

mass in the abdomen.^{5,9} In some centers, Stage IIB patients are treated with initial whole abdominal irradiation up to a dose of 2000 rad followed by boost dose to the main tumor area up to a dose of 4000 rad. Even the role of elective supradiaphragmatic irradiation in Stage II patients has been challenged in a recent publication.⁹

There has been some controversy in the management of anaplastic seminomas. Based on some recent reports, anaplastic seminomas are treated similar to the classical seminomas, since stage for stage, there was no difference in the survival rates.^{10,11}

The presence of an elevated HCG level at the time of diagnosis has been reported in pure seminomas,³ but the exact significance of this marker in seminomas is not yet determined. At this time, those patients with elevated HCG are treated as classical seminomas. Those patients with classical seminomas who have been treated have to be followed due to a slightly increased incidence of second testicular tumors.

Acknowledgement

Acknowledgements are due to Betty Achino, Barbara Glasford, R.N. and Gail Green for clinical assistance; Charlene Raizor for secretarial assistance.

References 1. Kademian MT, Bosch A: Testicular seminoma. *Wis Med J* 76:21–25, 1977. 2. Mostafi DK: Testicular tumors. *Cancer* 32:1186–1201, 1973. 3. Maier JG, Sulak MH, Mittemeyer BT: Seminoma of the testis: Analysis of treatment success and failure. *Am J Roentgenol* 120:596–602, 1968. 4. Castro JR, Gonzalez M: Results in treatment of pure seminoma of the testis. *Am J Roentgenol* 111:355–359, 1971. 5. Earle JD, Bagshaw MA, Kaplan HS: Supervoltage radiation therapy of the testicular tumors. *Am J Roentgenol* 117:653–663, 1973. 6. Saxena VS: Seminoma of the testis. *Am J Roentgenol* 117:643–652, 1973. 7. Smithers D, Wallace ENK, Wallace DM: Radiotherapy for patients with tumors of the testicle. *Br J Urol* 43:83–92, 1971. 8. Dosoretz DE, Shipley WU, Blitzer PH, Gilbert S, Prat J, Parkhurst E, Wang CC: Megavoltage irradiation for pure testicular seminoma. *Cancer* 48:2184–2190, 1981. 9. Thomas GM, Rider WD, Dembo AJ, Cummings BJ, Gospodarowicz M, Hawkins NV, Herman JG, Keen CW: Seminoma of the testis—results of treatment and patterns of failure after radiation therapy. *Int J Radiat Oncol Biol Phys* 8:165–174, 1982. 10. Jose B, Perkins LP, Tobin DA: Anaplastic seminoma—an analysis of eight cases with literature review. *J of Surg Onc* 18:331–334, 1981. 11. Percarpio B, Clements JC, McLeod DG, Sorgen SD, Cardinale FS: Anaplastic Seminoma: An analysis of 77 patients. *Cancer* 43:2510–2513, 1979.

From the Department of Radiation Oncology, James Graham Brown Cancer Center, University of Louisville, Louisville, Kentucky 40292.

Therapeutic Gastroenterology A Subspecialty Comes of Age

STANLEY B. BENJAMIN, M.D., RICHARD A. WRIGHT, M.D.,

AND RICHARD N. REDINGER, M.D.

Often viewed by the primary care physician as a purely diagnostic tool, fiberoptic endoscopy has evolved into a truly therapeutic modality. The array of available procedures has steadily grown with the likelihood for continued growth. These procedures offer alternatives to surgery in poor risk patients. It is important that all physicians be made aware of the wide spectrum of modalities provided by the therapeutic endoscopist.

Gastroenterology as a subspecialty of Internal Medicine has undergone a remarkable evolution in the last 20 years. The introduction of flexible fiberoptic endoscopy has expanded the role of the gastroenterologist from consultant—diagnostician to that of a therapist as well. It is apparent that the modern day gastroenterologist has the ability to offer nonoperative therapy in a wide variety of situations (Table I). This article is intended to acquaint the primary care physician with this array of modalities offered as either primary modes of therapy or alternatives to "Classic" approaches to gastroenterologic diseases.

Esophageal Diseases

1. Bougienage

This is the oldest therapy offered in gastroenterology (reported by Thomas Willis in 1674). Utilizing mercury filled dilators (Maloney or Hurst) and/or wire-guided metal olive dilators (Eder-Peustow), peroral dilatation of peptic, caustic or nonoperative malignant strictures has become the standard form of therapy for most patients.¹⁻³ The most recently described method of esophageal dilatation involves using balloon catheters.⁴ This method appears to be especially suited to very narrow

strictures where passage of mercury bougies or Eder-Peustow wires would be difficult or impossible.

2. Pneumatic Dilatation for Achalasia

In many centers pneumatic dilatation is the standard of therapy for achalasia.⁵⁻¹⁰ Results comparable to Heller myotomy can be obtained with an acceptably low complication rate (5-10%) at lower cost and shorter hospitalization.⁵⁻¹⁰

3. Esophageal Prosthesis in Esophageal Carcinoma

For nonresectable esophageal carcinoma, radiation therapy and dilatation are utilized for palliation. In the presence of tracheo-esophageal fistula or tumor that requires frequent dilatation, the peroral placement of an esophageal prosthesis offers an excellent means of palliation, avoiding the consideration of gastrostomy and improving the quality of life¹¹⁻¹³ (Figure 1).

4. Balloon Tamponade for Variceal Hemorrhage

Balloon tamponade has been considered a standard part of the therapeutic armamentarium available for bleeding esophageal varices.¹⁴⁻¹⁷ The Minnesota Four Lumen Esophagogastric Tamponade tube is now generally used since a port for esophageal suction offers an advantage over the classic Sengstaken-Blakemore tube.¹⁸ The Linton-Nachlas tube offers a potential advantage in the presence of bleeding gastric varices.¹⁷

5. Variceal Sclerotherapy

Recently repopularized in this country employing flexible or rigid endoscopy, variceal sclerotherapy appears to be effective in the control of variceal hemorrhage.¹⁹⁻²⁵ The long term benefit and the appropriate

TABLE 1.

- | |
|--|
| A. Esophagus |
| 1. Bougienage (mercury, Eder-Peustow, balloon) |
| 2. Pneumatic dilatation for achalasia |
| 3. Esophageal prosthesis for esophageal carcinoma |
| 4. Balloon tamponade for variceal hemorrhage |
| 5. Variceal sclerotherapy |
| 6. Foreign body removal |
| B. Stomach/Duodenum |
| 1. Polypectomy/large particle biopsy |
| 2. Cautery of gastrointestinal bleeding |
| 3. Balloon dilatation of pyloric stenosis |
| 4. Endoscopic gastrostomy |
| 5. Foreign body removal |
| C. Biliary Tree/Liver |
| 1. Endoscopic sphincterotomy/common duct stone removal |
| 2. Endoscopic dilatation of common duct structures |
| 3. Nasobiliary drainage/stent placement |
| D. Colon |
| 1. Polypectomy |
| 2. Therapy of angiodysplastic lesions |

agents are as yet unknown; however, it appears to have a place in the acute treatment of bleeding esophageal varices since it can control bleeding and reduce transfusion requirements.

6. Foreign Body Removal

A wide array of objects may be ingested. In appropriate cases these can be removed from the esophagus and stomach utilizing endoscopy²⁶⁻²⁸ (Figure 2). Even children less than two years of age can be safely endoscoped without general anesthesia, and the foreign body usually removed, without the requirement for operation.

B. Stomach

1. Polypectomy/Large Particle Biopsy

Endoscopic removal of polypoid gastric lesions usually precludes the consideration of laparotomy. In addition, large particle biopsy usually allows nonoperative diagnosis of that group of diseases associated with enlarged gastric folds (*eg* lymphoma, Menitrier's Syndrome).²⁹

2. Cautery of Gastrointestinal Bleeding

Cautery can be delivered to a site of gastrointestinal bleeding in a variety of methods: laser, electrocautery, or heater probe. Monopolar electrocautery is the only method generally available to the gastroenterologist and one that has been successful in a variety of situations including Mallory-Weiss tears, bleeding ulcers and telangiectasia.³⁰⁻³²



Fig. 1A: Oblique view of a barium swallow in a patient with squamous cell carcinoma of the lung following 3000 rads of radiation therapy. A tracheoesophageal fistula is evident.

3. Balloon Dilatation of Pyloric Stenosis

A recent addition to the armamentarium of the therapeutic gastroenterologist has been balloon dilatation of pyloric stenosis. Utilizing slight modifications of angioplasty catheters passed through or along side an endoscope, a clinical situation formally requiring surgical intervention can be approached nonoperatively^{33,34} (Figure 3).

4. Endoscopic Gastrostomy

The placement of a gastrostomy tube can be obtained without the use of general anesthesia. Using no more than the sedation required for an endoscopy, a gastrostomy tube can be placed in patients at high risk for general anesthesia³⁵ (Figure 4). This procedure is performed by passing a line percutaneously into the stomach, pulling it through the mouth and then advancing the catheter orally and out through the abdominal wall.



Fig. 1B: A repeat examination in the same patient following peroral placement of an esophageal prosthesis. Residual contrast is present in the lung parenchyma but no further flow is seen through the fistula.



Fig. 2A: Endoscopic view of a 2 cm piece of steak bone impacted in the mid esophagus can be seen.

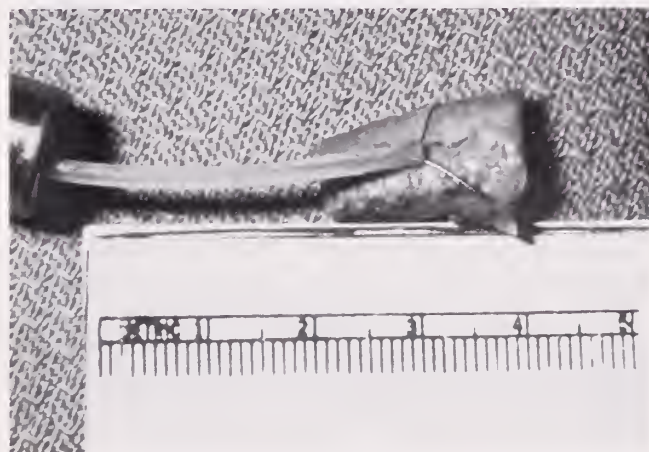


Fig. 2B: The steak bone has been retrieved by grasping it with a polypectomy snare.

5. Foreign Body Removal

Utilizing the same principles described for removal of foreign bodies from the esophagus can be employed for the treatment of foreign bodies of the stomach (see above).

C. Biliary Tree/Liver

The advent of endoscopic retrograde cholangio-pancreatography (ERCP) as a diagnostic tool was soon followed by therapeutic applications.

1. Endoscopic Sphincterotomy

The initial and most widely accepted therapeutic indication for ERCP is endoscopic sphincterotomy of the ampulla of vater with the removal of common duct stones. It is now considered the therapy of choice for the management of choledocholithiasis in the cholecystectomized patient³⁶ (Figure 5). It also has found application

in the management of gallstone pancreatitis, "sump syndrome" (residual stone or sludge in the segment between the ampulla and surgically produced choledochoduodenostomy), cholangitis and the management of common duct stones in the poor risk patient with an intact gall bladder.



Fig. 3A: An upper gastrointestinal radiograph in a patient with severe chronic obstructive pulmonary disease marked dilatation of the stomach with a large amount of retained secretions is present. Endoscopy revealed pyloric stenosis secondary to chronic peptic ulcer disease.

2. Endoscopic Balloon Dilatation in the Biliary and Pancreatic Ducts

Balloon catheters passed through the duodenoscope have been utilized to dilate structures of the biliary tree and most recently to treat papillary stenosis and pancreas divisum.³⁷

3. Nasobiliary Drainage/Stint Placement

As an adjunct to other procedures involving the biliary tree nasobiliary drainage provides a means of decompressing the biliary tree or for introducing dissolving agents.³⁸ Biliary stints offer a means of long term palliation of malignant structures.³⁹

D. Colon

1. Polypectomy

In no area of gastroenterology is the cost effectiveness of fiberoptic techniques more apparent. With access to the entire colon, polyps can be removed with



Fig. 3B: A repeat upper gastrointestinal radiograph in the same patient one year later following endoscopic balloon dilatation of the pylorus. The patient had relief of symptoms with a twenty pound weight gain.

minimal risk, obviating the need for general anesthesia and colonic resection.^{40,41} In addition, patients at high risk for the development of polyps and carcinoma (*eg* ulcerative colitis, previous polyps or cancer, family history of polyps or cancer) can undergo regular surveillance for both diagnosis and therapy.

2. Therapy of Angiodysplastic Lesions

Angiodysplasia of the colon is now recognized as a common source of gastrointestinal bleeding. The colonoscope was responsible for widespread recognition of angiodysplasia; and it was soon followed by a variety of methods of treatment, electrocautery, laser and chemical instillation.^{42,43}

Summary

Fiberoptic endoscopy has evolved from a purely diagnostic tool to a therapeutic modality with far reaching application. The extent of this application is increasing and seems limited only by the imagination and innovations of the endoscopist. The capabilities of ther-



Fig. 4: An endoscopically placed feeding gastrostomy is present two thirds of the way between the umbilicus and mid clavicular line (MCL) in a patient with recently sustained neurologic damage.

peutic endoscope add to the physician's ability to manage patients with conditions which might otherwise require major surgery. In appropriately selected patients, these techniques provide safer, often less costly therapy which can often be provided in an out-patient setting.

References 1. Benedict EB: Peptic stenosis of the esophagus—a study of 233 patients treated with bougienage, surgery, or both. *Am J Dig Dis* 11:761–770, 1966. 2. Lanza FL, Graham GY: Bougienage is effective therapy for most benign esophageal strictures. *JAMA* 240:844–847, 1978. 3. Wesdorp ICE, Bartelsman JFW, den Hartog Jager FCA, et al: Results of conservative treatment of benign esophageal strictures. *Gastroenterology* 82:487–493, 1982. 4. London RL, Trotman BW, DiMarino AJ, et al: Dilatation of severe esophageal strictures by an inflatable balloon catheter. *Gastroenterology* 80:173–175, 1981. 5. Bennett JR, Hendrix TR: Treatment of achalasia with pneumatic dilatation. *Mod Treatment* 7:1217–1228, 1970. 6. Benedict EB: Bougienage, forceful dilatation and surgery in the management of achalasia. *JAMA* 188:355–357, 1964. 7. Kurlander DJ, Rankin HF, Kirsner JB, Palmer WL: Therapeutic value of the pneumatic dilator in achalasia of the esophagus. *Gastroenterology* 45:604–613, 1963. 8. Sanderson DR,



Fig. 5A: A cholangiogram in a jaundiced patient with retained common duct stone three years post cholecystectomy.



Fig. 5B: Following endoscopic sphincterotomy a Dormia basket has been advanced into the common bile duct and can be seen grasping the stone prior to removal.

Ellis FH, Olsen AM: Achalasia of the esophagus: result of therapy by dilatation. *Chest* 58:116–121, 1970. 9. Van Trappen G, Helleman J, Deloof W, Valembois P, Vandenbrouke J: Treatment of achalasia with pneumatic dilatation. *Gut* 12:268–275, 1971. 10. Lishman AH, Pellipani AW: Management of achalasia of the cardia by forced pneumatic dilatation. *Gut* 23:541–544, 1982. 11. Palmer ED: Experiences with management of malignant esophago-respiratory fistula by peroral esophageal prosthesis. *Gastrointest Endosc* 17:12–16, 1970. 12. Peura DA, Heit HA, Johnson LF, et al: Esophageal prosthesis in cancer. *Am J Dig Dis* 23:796–800, 1978. 13. Graham DY, Dobbs SM, Zubler M: What is the role of prosthesis insertion in esophageal carcinoma? *Gastrointest Endosc* 29:1–5, 1983. 14. Sengstaken RW, Blakemore AH: Balloon tamponade

for the control of hemorrhage from esophageal varices. *Ann Surg* 131:781-789, 1950. **15.** Hermann RE, Traul D: Experience with the Sengstaken-Blakemore tube for bleeding esophageal varices. *Surg Gynecol Obstet* 113:481-489, 1961. **16.** Pitcher JL: Safety and effectiveness of the modified Sengstaken-Blakemore tube: a prospective study. *Gastroenterology* 61:291-298, 1971. **17.** Teres J, Cecilia A, Bordas J, et al: Esophageal tamponade for bleeding varices. *Gastroenterology* 75:566-569, 1978. **18.** Mitchell K, Silk DBA, Williams R: Prospective comparison of two Sengstaken tubes in the management of patients with variceal haemorrhage. *Gut* 21:570-573, 1980. **19.** Terblance J, Northover JMA, Bornman P, et al: A prospective evaluation of injection sclerotherapy in the treatment of acute bleeding from esophageal varices. *Surgery* 85:239-245, 1979. **20.** Clark AW, Westaby D, Silk DB, et al: Prospective controlled trial of injection sclerotherapy in patients with cirrhosis and recent variceal hemorrhage. *Lancet* 1:552-554, 1980. **21.** Palani CK, Abuabara S, Kraft AV, Jonasson O: Endoscopic sclerotherapy in acute variceal hemorrhage. *Am J Surg* 141:164-168, 1981. **22.** Sivak MV, Stout DJ, Skipper G: Endoscopic injection sclerosis (EIS) of esophageal varices. *Gastrointest Endosc* 27:52-57, 1981. **23.** Hedberg SE, Fowler DL, Ryan RLR: Injection sclerotherapy of esophageal varices using ethanolamine oleate. *Amer J Surg* 142:426-431, 1982. **24.** Hughes RW, Larson DE, Viggiano TR, et al: Endoscopic variceal sclerosis: a one year experience. *Gastrointest Endosc* 28:62-66, 1982. **25.** Fleig WE, Stange EF, Ruettanver K, Ditschuneit H: Emergency endoscopic sclerotherapy for bleeding esophageal varices: a prospective study in patients not responding to balloon tamponade. *Gastrointest Endosc* 29:8-14, 1983. **26.** Spitz L: Management of ingested foreign bodies in childhood. *Br Med J* 4:469-472, 1971. **27.** Classen M, Farthman ER, Seifert E, Wurbs D: Operative and therapeutic techniques. *Clinics in Gastroenter* 7:741-743, 1978. **28.** McCray RS: Foreign body endoscopy. *Gastrointest Endosc* 27:236-237, 1981. **29.** Bjork JT, Geenen JE, Soergel KH, et al: Endoscopic evaluation of large gastric folds. A comparison of biopsy techniques. *Gastrointest Endosc* 24:22-23, 1977. **30.** Papp JP: Endoscopic electrocoagulation of upper gastrointestinal hemorrhage. *JAMA* 236:2076-2079, 1976. **31.** Gaisford WD: Endoscopic electrocautery of active upper gastrointestinal bleeding. *Am J Surg* 137:47-53, 1979. **32.** Hojsgaard PWA, Amdrup E: En-

doscopic Electrocoagulation combined with cimetidine. *Acta Chir Scand* 116:431-434, 1980. **33.** Benjamin SB, Cattau EL, Glass R: Balloon dilatation of the pylorus: therapy for gastric outlet obstruction. *Gastrointest Endosc* 28:1164-1166, 1982. **34.** Benjamin SB, Cattau EL, Glass R, Miller W: Preliminary report of balloon dilatation of the pylorus. *Gastrointest Endosc* (in press). **35.** Ponsky JL, Gauderer M: Percutaneous endoscopic gastrostomy: a nonoperative technique for feeding gastrostomy. *Gastrointest Endoscopy* 27:9-11, 1981. **36.** Geenen JE, Vennes JA, Silvis SE: Resume of a seminar on endoscopic retrograde sphincterotomy (ERS). *Gastrointest Endosc* 27:37- , 1981. **37.** Siegel JH, Guelrud M: Endoscopic cholangioplasty: Hydrostatic dilatation in pancreatico-biliary diseases. *Gastrointest Endosc* 28:144A, 1982. **38.** Wurbs D, Phillip J, Classen M: Experience with long-standing naso-biliary tubes in biliary diseases. *Endoscopy* 12:219-223, 1980. **39.** Cotton PB: Duodenoscopic placement of biliary prosthesis in malignant obstructive jaundice. *Gut* 22:888A, 1981. **40.** Wolff WR, Shinya H: Polypectomy via the fiberoptic colonoscope. *N Eng J Med* 288:329-333, 1973. **41.** Shinya H, Wolff WJ: Colonoscopic polypectomy: technique and safety. *Hosp Pract* 10:71, 1975. **42.** Rogers BHG, Adler F: Hemangiomas of the cecum. Colonoscopic diagnosis and treatment. *Gastroenterology* 71:1079-1082, 1976. **43.** Weaver GA, Alpern HD, Davis JS, Ramsey WH, Reichelderfer M: Gastrointestinal angiodysplasia associated with aortic valve disease: part of a spectrum of angiodysplasia of the gut. *Gastroenterology* 77:1-11, 1979.

From the Department of Gastroenterology, National Naval Medical Center, Bethesda, Maryland, and the Division of Gastroenterology, University of Louisville School of Medicine, Louisville, Kentucky. The authors wish to thank Mrs. Erna Lee Benjamin for her expert secretarial and editorial support in preparation of this manuscript.

Malignant Skin Tumors Presenting As Seborrheic Keratosis

STEVEN J. HODGE, M.D., MICHAEL D. JOHN, M.D. AND GORDON B. NEWELL, M.D.

Although seborrheic keratosis (SK) is usually easily diagnosed clinically, it may at times mimic other tumors. We present 37 lesions which were clinically diagnosed as SK, but demonstrated histologically several types of malignant tumor. Because of this, we encourage biopsy of these clinically benign-appearing lesions.

A seborrheic keratosis (SK) is a gray to brown crusted lesion which has a superficial warty appearance and is considered totally benign. Although generally presenting little difficulty in diagnosis either clinically or histologically, the clinical features may vary. They can at times mimic pigmented nevi, warts, pyogenic granulomas or malignant tumors such as squamous cell or basal cell carcinoma. We present 37 cases of lesions which were clinically diagnosed as SK, but demonstrated histologically several varieties of malignant tumor, either arising in SK, co-existing with SK, or architecturally resembling SK. The report is based on cases encountered among more than 120,000 histologic specimens, 9,000 of which were SK.

Histopathology

All lesions showed the overall histology normally seen in SK, including hyperkeratosis, papillomatosis and basaloid acanthosis. Most specimens showed keratinous horn cysts and invaginations. Thirty cases showed basal cell carcinoma with five lesions directly arising in SK and 25 either under or adjacent to SK. The basal cell tumors were composed of malignant basaloid cells with hyperchromatic nuclei and scant cytoplasm, smaller and darker than the basaloid SK cells (Fig 1 and 2).¹ Since in 25 cases we failed to demonstrate a point of origin in SK, we assume that basal cell carcinoma and SK co-exist in the same lesion.

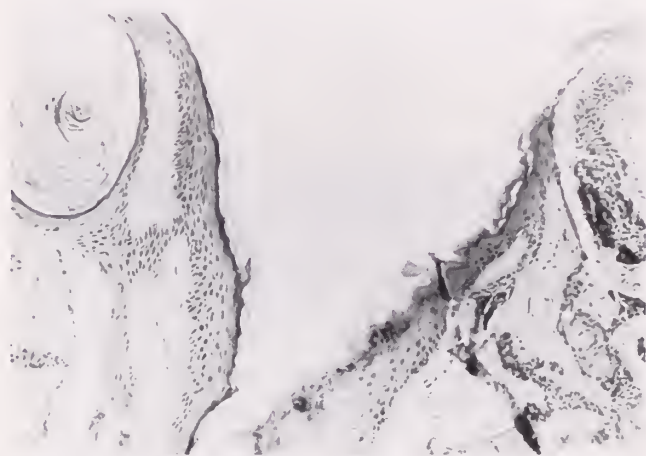


Fig. 1: Basal cell carcinoma arising seborrheic keratosis. Note several foci of basal cell tumor arising on left. Hematoxylin-eosin $\times 40$.

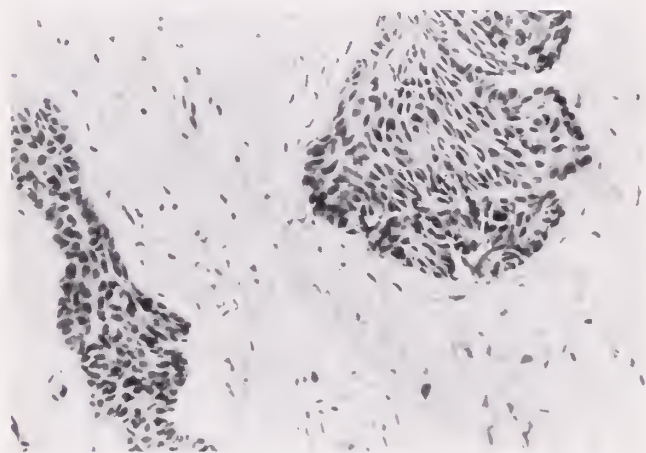


Fig. 2: Nests of basal cell carcinoma in SK. Palisading basal cells form nests with retraction from normal stroma. Hematoxylin-eosin $\times 40$.

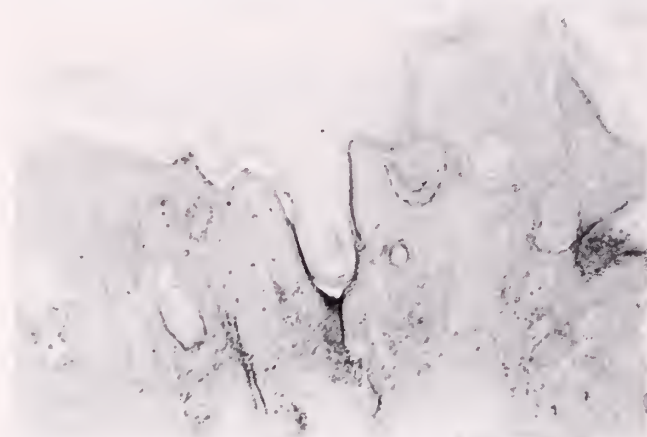


Fig. 3: Verrucous melanoma with horn cysts resembles SK. Hematoxylin-eosin $\times 40$.

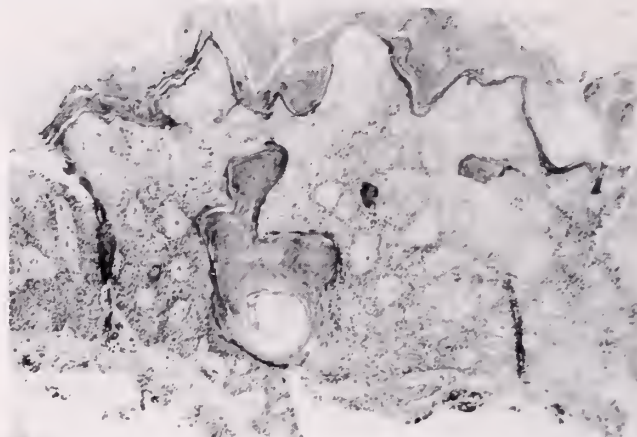


Fig. 5: Verrucous squamous cell carcinoma-in-situ resembling SK. Hematoxylin-eosin $\times 40$.



Fig. 4: Higher power of figure 3 shows malignant melanocytes at dermo-epidermal junction invading dermis. Cells show hyperchromatic pleomorphic nuclei with atypical mitoses and multiple large nucleoli. Individual similar cells are seen in the epidermis. Hematoxylin-eosin $\times 250$.

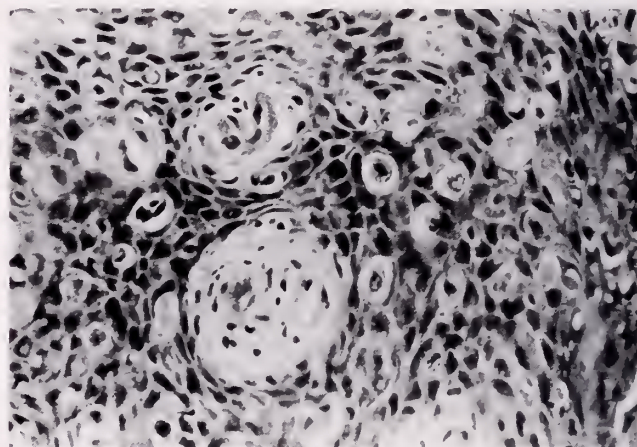


Fig. 6: Higher power of figure 5 shows numerous dyskeratotic squamous cells lacking maturation. Atypical mitotic figures are seen along with squamous cells showing hyperchromatic pleomorphic nuclei. Hematoxylin-eosin $\times 250$.

One case of malignant melanoma had a verrucous architecture with horn cysts and hyperkeratosis. Malignant melanocytes filled the papillary dermis and extended deep in the dermis to Clark's Level IV. Tumor thickness exceeded 2 mm (Fig 3 & 4). The second case of malignant melanoma showed a nodular growth pattern with a thickness of over 1 mm and corresponding to Clark's Level III.

Five lesions showed a pattern of squamous cell carcinoma-in-situ, one of which demonstrated early microinvasion. All tumors showed papillomatosis and hyperkeratosis, but the cytologic pattern was through-and-through atypical, poorly-differentiated squamous cells. There was absence of the granular layer with improper maturation of keratinocytes, dyskeratosis, with

hyperchromatic, pleomorphic nuclei and atypical mitotic figures (Fig 5 & 6).

Comment

This study has shown that clinically unsuspected malignancy may occur concomitantly with SK or even histologically mimic SK. Since some clinicians may be reluctant to histologically examine these tumors and since some third-party carriers are discouraging support of this procedure, we feel this is an important finding.

Rowe² could not find microscopic evidence of malignant association in 246 cases of SK. Sachs *et al*³ found that basal cell carcinoma, but not squamous cell carcinoma can arise in SK. Lehman⁴ felt that SK is pre-malignant, and Kwitken⁵ demonstrated five cases of basal cell carcinoma apparently arising in SK.

Although the association of malignant tumors with SK in the same lesion is rare it is the responsibility of the pathologist to render an accurate diagnosis and that of the clinician to properly treat and follow these cases.

References 1. Mikhail GR, Mehregan AH: Basal cell carcinoma in seborrheic keratosis. *J of Am Acad Derm* 6 (4) Part 1: 500-506, April 1982. 2. Rowe L: Seborrheic keratosis: Pseudo-epitheliomatous hyperplasia (Weidman). *J Invest Dermatol* 29:165-180, 1957. 3. Sachs W, Mackel GM, Sachs PM: Keratosis (seborrheic and senile) *Arch Dermatol Syphilol* 59:179-191, 1949. 4. Lehman CF: Diagnosis and treatment of precancerous conditions of the skin. *Tex Med* 51:503-508, 1955. 5. Kwitken J: Malignant changes in seborrheic keratosis. *Mt Sinai J Med* 41: 792-801, 1975.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Gastroduodenal Crohn's Disease

BILL HOAGLAND, M.D., T. JEFFERY WIEMAN, M.D. AND EUGENE H. SHIVELY, M.D., FACS

Crohn's disease rarely manifests itself in the stomach and the duodenum and occurs in only about 2% of people with regional enteritis. However, when the disease is present, it usually causes a severe problem with gastric outlet obstruction. We report our experience with three young patients with gastroduodenal Crohn's disease. Each required surgical intervention. In our experience and review of the literature, involvement of the stomach in Crohn's disease does not respond to medical treatment and usually requires surgical intervention.

Regional enteritis, as described by Crohn, *et al* in 1932, was so named because of the potential involvement of many areas of the gastrointestinal tract.¹ Ileocecal involvement is most common and is found in 58% of patients. The disease is limited to the small bowel in 31% of patients; it is confined to the colon in 11% of patients.² Gastroduodenal involvement in Crohn's disease is rare, occurring in only 2% of patients.

Our experience with three patients with gastroduodenal Crohn's disease illustrates the difficulty in management of this serious problem.

Case Reports

Case I: The patient is a 20-year-old woman who was admitted to the hospital for gastric outlet obstruction. She complained of a two-month history of epigastric pain, nausea, vomiting, a 20-pound weight loss and episodic diarrhea. An upper gastrointestinal series performed prior to admission was interpreted as consistent with severe duodenal ulcer disease (Figure 1). The patient was started on Tagamet, but her symptoms increased in severity and she was admitted for further workup.

The woman's past history was unremarkable. The physical examination was significant only for obvious evidence of weight loss. Initial laboratory data dis-

closed elevated liver enzymes which included alkaline phosphatase, SGOT, and LDH. A hepatitis profile was negative.

The patient was gastroscopied. An inflamed pylorus was noted. The outlet was almost completely obstructed. Biopsies of the area were interpreted as chronic inflammation. Serum gastrin and gastric analysis were normal. The patient was treated with nasogastric suction and parenteral hyperalimentation. In two weeks she had gained 13 pounds and was felt to be in positive nitrogen balance. A laparotomy was performed. The first and second portions of the duodenum were thickened. The serosa was inflamed. Additional involvement of the lesser curvature of the stomach was found. She also had distal ileal disease. The changes were typical of regional enteritis including inflamed serosa, mesenteric fat encroachment and a thickened mesentery. The appendix did not appear to be involved.

A vagotomy, gastrojejunostomy, and incidental appendectomy were performed. Biopsy of the left lobe of the liver was interpreted histologically as acute hepatitis. The patient was discharged on the 13th postoperative day, eating a regular diet. She has continued to do well clinically. However, a repeat upper gastrointestinal series shows progression of her disease in the antrum (Figure 2).

Case II: The patient, is an 18-year-old man who had been admitted to the hospital three times for symptoms of gastric outlet obstruction. He was first hospitalized with complaints of nausea, vomiting, weight loss, and occasional diarrhea. An upper gastrointestinal series with small bowel follow through displayed narrowing and mucosal irregularity of the distal ileum and duodenum, consistent with regional enteritis. Endoscopy identified some mild esophagitis and scarring of the pylorus. A workup for Z-E syndrome was negative. The patient improved. He was discharged and followed as an outpatient. One month later he returned with continued weight loss, nausea and vomiting. Saline load tests indicated a pyloric obstruction. Air contrast barium enema identified mucosal irregularities of the distal



Fig. 1. Upper gastrointestinal series showing the narrowing of first and second portion of duodenum.



Fig. 2. Repeat upper gastrointestinal series showing the progression of disease with total obstruction of antrum.

ileum (Figure 3). The patient was re-endoscoped and was found to have mild stenosis of the pylorus with duodenal edema. The patient was placed on nasogastric suction, parenteral hyperalimentation, and Prednisone. After three weeks of hyperalimentation, the patient had gained 13 pounds. He had a normal saline load test. He was discharged only to be readmitted two weeks later with the same complaints. The patient was again started on hyperalimentation. A laparotomy was performed. The entire pyloric and prepyloric regions were edematous. There was definite serosal involvement. The duodenal bulb and the second portion of the duodenum were also diseased. The terminal ileum demonstrated the characteristic signs of regional enteritis.

A vagotomy and gastroenterostomy with incidental appendectomy and liver biopsy were performed. The liver biopsy was normal. The patient did well postoperatively. He was discharged on the eighth postoperative day with no symptoms and has continued to do well for the last year.

Case III: The patient, is a 23-year-old woman who was admitted to the hospital with a nine-month history of nausea, vomiting and weight loss. She had been hospitalized once prior to this admission for treatment of peptic ulcer disease. At present she was unable to eat solid food and had lost 24 pounds. Her past history was noncontributory. Only evidence of weight loss was noted on physical examination.

Upper gastrointestinal series was interpreted by the radiologist as gastric outlet obstruction with a possible infiltrating tumor (Figure 4). During endoscopy the distal antrum appeared very inflamed with evidence of

submucosal involvement. Numerous biopsies showed chronic inflammation. The workup for Z-E syndrome was negative.

The patient began parenteral hyperalimentation. A laparotomy was performed after her nutritional status had improved. The distal antrum and duodenal bulb were thickened. They grossly appeared to be involved with an infiltrating tumor. Multiple biopsies showed scarring and chronic inflammation with no malignant cells. Numerous lymph nodes of the greater and lesser omentum were also biopsied. All proved to be negative for malignancy. The gallbladder also appeared to be inflamed.

A vagotomy, antrectomy and Billroth II anastomosis were performed. A Bancroft-Plenk procedure was required because the bile duct was found to be entering the duodenal bulb. A cholecystectomy was performed. An intraoperative cholangiogram was normal. Histologically there was severe scarring and chronic inflammation of the entire wall of the stomach and the duodenum. The lymph nodes displayed reactive hyperplasia but no granulomas. The gallbladder showed chronic active cholecystitis. The patient was discharged on the



Fig. 3. Barium enema showing mucosal irregularity of distal ileum.

19th postoperative day with no symptoms and was eating a regular diet. For the last two years she has remained asymptomatic. A recent x-ray showed functioning gastrojejunostomy without evidence of new disease.

Discussion

Gastroduodenal involvement in Crohn's disease, although uncommon, is not a new finding. It was first reported in 1937³ but wasn't seriously considered until 1950. Comfort, *et al*,⁴ studied five cases of duodenal Crohn's disease and described the common presenting symptoms as: 1) Continuous or intermittent upper abdominal distress made worse by ingestion of food and often associated with weight loss, weakness, nausea and vomiting; 2) episodic or steatorrheal diarrhea; 3) gastric retention; 4) signs of malabsorption. Since that study the number of cases of reported gastroduodenal disease has increased. Awareness of the potential for gastroduodenal involvement is undoubtedly responsible for a large part of this increase.

In our patients, two of the three presented clinical pictures similar to a combination of high intestinal ob-



Fig. 4. Upper gastrointestinal series showing gastric outlet obstruction.

struction and atypical duodenal ulcer disease. This included postprandial pain, vomiting, weight loss, and incomplete response to Tagamet therapy. The other patient suffered symptoms of high intestinal obstruction alone. Therefore, our experience is similar to Farmer, *et al*,⁵ who felt that gastroduodenal Crohn's could be divided into three categories of symptoms: 1) Symptoms of high intestinal obstruction; 2) symptoms of atypical ulcer disease; and 3) both.

The diagnosis of gastroduodenal Crohn's disease is not easily made.

Radiographic studies using barium may show narrowing of the distal stomach and duodenum.⁵ In our group, however, one patient was interpreted as having severe duodenal ulcer disease, while another patient was felt to have an infiltrating tumor. Esophagogastroduodenoscopy was performed in all three patients. This procedure showed scarring and inflammation of the pyloric area in patients one and two, and the biopsies showed chronic inflammation. The third patient appeared to have an infiltrating submucosal tumor and the biopsies showed no malignancy. Esophagogastroduodenoscopy is important in the diagnostic workup but

biopsy does not provide a definite diagnosis since granulomas are uncommonly identified.

The first avenue of treatment in Crohn's disease is usually medical. This includes parenteral hyperalimentation, Prednisone, and Azulfidine when the disease is active. Prophylactic treatment of Crohn's disease has not proved worthwhile.⁶ In our experience and in the review of the literature, it appears that gastroduodenal Crohn's disease rarely responds to medical therapy.⁷ However, due to the difficulty in diagnosis previously mentioned, only one of our patients was diagnosed as having Crohn's disease prior to surgery. He received medical therapy which was unsuccessful.

The indication for surgery is usually obstruction. Massive hemorrhage is uncommon. All of our patients presented symptoms of partial obstruction. Two patients had a vagotomy and gastroenterostomy, while the third had a vagotomy and antrectomy with Billroth II anastomosis. While in general the operative treatment of Crohn's disease is best achieved with resection, this is not true where gastroduodenal involvement is concerned. Colcock⁸ states that resection is preferable to bypass in the majority of patients. One exception to this is the patient with gastroduodenal Crohn's disease. If the patient suffers severe bleeding of the duodenum it may be safer to do a vagotomy and antrectomy with Billroth II anastomosis in order to divert the stomach contents from the bleeding site. Obviously it is desirable in such cases that the first portion of the duodenum be free from disease in order to secure a good duodenal stump closure; otherwise vagotomy and gastrojejunostomy would be better. The recurrence rates for gastroduodenal Crohn's disease following gastroenterostomy are not known.

Summary

Crohn's disease of the gastroduodenal region is a rare finding but is very important to consider in the differential diagnosis of patients with atypical gastrointestinal symptoms. As we become more sophisticated in our diagnostic techniques, more and more gastroduodenal Crohn's disease will be seen. This serious disease is usually unresponsive to medical therapy once it is symptomatic. A bypass procedure appears to be a safe and effective means of treating obstruction seen in this form of the disease.

References 1. Crohn BB, Ginzburg L, Oppenheimer GD: Regional ileitis; pathologic and clinical entity. *JAMA* 99:1323-1329, 1932. 2. Mekhjian HS, Switz DM, Melnyk CS, Rankin GB, Brooks RK: Clinical Features and Natural History of Crohn's Disease. *Gastroenterology* Vol. 77 #4, 907-913, Oct. 1979. 3. Gottlieb C, Alpert S: Regional jejunitis. *Am J Roentgenol Radium Ther Nucl Med.* 38:881-883, 1937. 4. Comfort MW, Weber HM, Baggenstoss AH, Kiely WF: Nonspecific granulomatous inflammation of the stomach and duodenum. *Am J Med Sci* 220:616-632, 1950. 5. Farmer RG, Hawk WA, and Turnbull RB Jr: Crohn's disease of duodenum (transmural duodenitis: Clinical manifestations). *Am J Digestive Dis* Vol: 17, #3, 191-197, 1972. 6. Singleton JW: Corticosteroids for Crohn's Disease. *Ann Intern Med* Vol: 90(6):983-4, June 1979. 7. Tootla F, Lucas RJ, Bernacki EG, Tabor H: Gastroduodenal Crohn's disease. *Arch Surg* Vol: III, pages 855-857, 1976. 8. Colcock BP: Operative techniques in surgery for Crohn's disease and its relationship to recurrence. *Surg Clin North Am* Vol: 53 #2, pages 375-394, 1973.

From the Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky 40292.

Roche salutes the history of Kentucky medicine

THE DOCTOR WHO PIONEERED ABDOMINAL SURGERY



Dr. Ephraim McDowell

In 1795, Dr. Ephraim McDowell of Virginia settled in the village of Danville, Kentucky. His practice took him on horseback over hundreds of miles of wilderness.

Nevertheless, his reputation as a skillful and successful surgeon spread—especially for lithotomies, which he performed 22 times without losing a patient.¹

First ovariectomy

McDowell's true moment in history came in 1809, when he performed the first known ovariectomy for removal of a tumor from Jane Crawford, then 47. The procedure was completed in 25 minutes, and Mrs. Crawford not only recovered but lived to age 78.^{1,2}

This landmark surgery was performed under the most primitive conditions—without anesthesia or anti-

sepsis—while, the story is told, brave Mrs. Crawford distracted herself as best she could by singing hymns.²

His published reports of this case, along with two others in 1817 and an additional two in 1819, established Dr. McDowell as the physician who saved women afflicted with ovarian disease from their previously hopeless situation and, further, marked the beginning of abdominal surgery.¹ To European medical practitioners, Dr. McDowell's accomplishments offered clear evidence that medicine was coming of age in America.³

References: 1. Gornison FH. *An Introduction to the History of Medicine*, 4th ed Philadelphia, W B Saunders Company, 1929, pp 507-508. 2. Pockford FR. *History of Medicine in the United States*, vol. II. New York, Holtner Publishing Company, 1963, pp 727-728. 3. Shaffel N. The evolution of American medical literature, in *History of American Medicine*, edited by Morti-Ibanez F, New York, MD Publications, 1959, p. 106



When the history reveals mixed depression and anxiety...

For the estimated 70 percent of nonpsychotic depressed patients who are also anxious,¹ Limbitrol provides both amitriptyline, specific for symptoms of depression, and the effects of Librium® (chlordiazepoxide HCl/Roche), the tested and dependable anxiolytic. Limbitrol is, therefore, a better choice for these patients than dual agents that contain a phenothiazine, a class of antipsychotic drugs which has been associated with tardive dyskinesia.

62% of Overall Improvement...Within the First Week

Limbitrol also has a rapid onset of action which may lead to greater patient compliance. In a multicenter study, patients taking Limbitrol experienced 62% of their overall improvement within the first week of therapy.²

In another multicenter study,³ the following symptoms associated with anxious depression were significantly reduced during the first two weeks of therapy:

- ☐ Headache—79%
- ☐ Early insomnia—91%
- Middle insomnia—87%
- Late insomnia—89%
- ☐ Gastrointestinal upset—73%

In two multicenter studies, only 1.9% of Limbitrol patients experienced cardiovascular side effects.³

Patients should be cautioned about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness such as operating machinery or driving a car.

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jorvik ME; New York, Appleton-Century-Crofts, 1977, p. 316. 2. Feighner JP *et al*: *Psychopharmacology* 61: 217-229, Mar. 1979. 3. Data on file, Hoffmann-La Roche Inc., Nutley, NJ

In moderate depression and anxiety

Limbitrol®

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

LIMBITROL® Tablets (N) Tranquilizer-Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Use in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration at ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects at both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, Prescription Paks at 50.

References:

1. Stone PH, Turin ZG, Muller JE. Efficacy of nifedipine therapy for refractory angina pectoris. *Am Heart J* 104 672-681, September 1982.
2. Antman E, Muller J, Goldberg S, et al. Nifedipine therapy for coronary artery spasm. Experience in 127 patients. *N Engl J Med* 302 1269-1273, June 5, 1980.

BRIEF SUMMARY

PROCARDIA® (nifedipine) CAPSULES

For Oral Use

INDICATIONS AND USAGE: I. **Vasospastic Angina:** PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation, 2) angina or coronary artery spasm provoked by ergonovine, or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. **Chronic Stable Angina (Classical Effort-Associated Angina):** PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS: Known hypersensitivity reaction to PROCARDIA.

WARNINGS: **Excessive Hypotension:** Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out. In PROCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and, if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PROCARDIA to be washed out of the body prior to surgery.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients, usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: **General: Hypotension:** Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug Interactions: Beta-adrenergic blocking agents. (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates. PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antianaginal effectiveness of this combination.

Digitalis. Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility. When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy: Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients; transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianaginal medication. Additionally the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholelithiasis, possibly due to PROCARDIA therapy, has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request.

© 1982, Pfizer Inc.



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701



LABORATORIES DIVISION
PFIZER INC.

"I can do things that I couldn't do for 3 yrs. including joining the human race again."

"My daily routine consisted of sitting in my chair trying to stay alive."

"My doctor switched me to PROCARDIA^[] as soon as it became available. The change in my condition is remarkable."*

"I shop, cook and can plant flowers again."

"I have been able to do volunteer work...and feel needed and useful once again."

PROCARDIA can mean the return to a more normal life for your patients—having fewer anginal attacks,¹ taking fewer nitroglycerin tablets,² doing more, and being more productive once again.

Side effects are usually mild (most frequently reported are dizziness or lightheadedness, peripheral edema, nausea, weakness, headache and flushing, each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%).

Quotes from an unsolicited letter received by Pfizer from an angina patient. While this patient's experience is representative of many unsolicited comments received, not all patients will respond to Procordia nor will they all respond to the same degree.

© 1983, Pfizer Inc.



for the varied faces of angina

* Procordia is indicated for the management of:

- 1) Confirmed vasospastic angina.
- 2) Angina where the clinical presentation suggests a possible vasospastic component.
- 3) Chronic stable angina without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or nitrates or who cannot tolerate these agents. In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks' duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

PROCARDIA[®] **(NIFEDIPINE)** Capsules 10 mg

Please see PROCARDIA brief summary on adjoining page.

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

Upjohn

Breast Cancer and Normal Mammograms

Mammography has proved to be a valuable aid in the diagnosis of early breast cancer. It is particularly useful in high risk patients in whom very small cancers may sometime be identified before they are palpable.

Unfortunately mammography is not foolproof. **Many patients with breast cancer have normal mammograms.** The lay public and many primary care physicians are not aware of this fact even though it has been repeatedly documented in the surgical literature. This lack of awareness may lead to delay in treatment of the cancer.

I reviewed my experience with breast cancer for 1983. There were 28 mastectomies for breast cancer. Of these 28 patients, 19 had preoperative mammograms. Six of these 19 patients (31.6%) had normal mammograms.

These six false negative studies were done in four different departments of radiology and no two were interpreted by the same radiologist.

The purpose of this editorial is to emphasize these already well established facts: (1) a normal mammogram does not guarantee the absence of breast cancer and, (2) every suspicious breast lump should be removed regardless of what the mammogram shows.

1. Mann BD, *et al*: Delayed diagnosis of breast cancer as a result of normal mammograms. *Arch Surg* 1983;118:23-25. **2.** Burns PE: False negative mammograms delay diagnosis of breast cancer. *N Engl J Med* 1978;299:201-202.

McHenry S. Brewer, M.D.

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



The Physician and the Right To Health Care

RICHARD A. WRIGHT M.D.

The individual's right to health care is an issue that confronts every civilized society. With rising costs and limited resources decisions regarding the allocation and distribution of health care are essential. The health care professional is forced to choose from numerous beneficial diagnostic and therapeutic modalities, while cautiously limiting expenditures. Failure to contain the health care cost spiral will result in a burgeoning federal regulatory input on the industry. Physicians are directly and indirectly in control of more than 70% of the annual health care expenditures.¹ The physician is motivated to provide the best possible care with the myraid of available technologies and practice defensive medicine to avoid malpractice litigation. Thus, the physician finds himself in a double bind situation with no clearcut resolution apparent.

For millennia, philosophers and civic organizations have espoused the concept of the universal right to health care. Written nearly 4,000 years ago, the code of Hammurabi set forth conditions governing the distribution of care. John Locke, the British philosopher whose influence is readily apparent in the U.S. Declaration of Independence, felt that "integrity of the body" and "freedom from pain" were the rights of all human beings.² After its establishment in 1948, the United Nations General Assembly adopted the stance that "everyone has a right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing, and medical care."³ Two decades later, the American Medical Association declared that every citizen had a right to adequate medical care.⁴ Also, the preamble of the World Health Organization contains the following statement: "The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition."⁵

More recently, the right to health care has been considered under context of civil rights.⁶ In an effort to

circumvent controversy over life support systems, Roman Catholic moralists have favored "ordinary" care and opposed "extraordinary" intervention. "Ordinary" care is defined as "whatever a patient can obtain and undergo without thereby imposing an excessive burden on himself or others." On the other hand, "extraordinary" therapy is defined as "whatever here and now is very costly and very unusual, or very painful, or very difficult, or very dangerous, or if the good effects from its use are not proportionate to the difficulty and inconvenience that are entailed." Under this code the physician has neither the duty nor right to embark on "extraordinary" treatment without the permission of the patient or his family. Consequently, there is an undeniable trend toward health care as a right to all human beings, but very little definition of responsibility or accountability.

In current parlance the right to health care has the connotation of free service at someone else's expense. This can occur by several mechanisms. First, the physician can donate his services free of charge. Secondly, a charitable organization can donate the cost of the individual's care. Thirdly, the patient can obtain service with funds seized from others in the form of taxation. The latter is considered by many to be an abrogation of rights enforcing contribution to the well-being of another by compulsory taxation.

Another issue confronting health care professionals is the quantity and quality of service required, if one accepts the concept of medical care as a "right." Standards of care and facilities vary tremendously. What would be considered malpractice in one location might be considered an appropriate standard of care in another. Furthermore, extenuating circumstances such as war or natural disasters may adversely affect the existing availability of standard care.

The traditional competitive market solution to health care cost containment is eliminated by granting free services to all citizens. Unlimited demand for scarce

RIGHT TO HEALTH CARE—Wright

resources is thereby created with resultant escalating costs. The experience of several socialized medicine programs has elucidated this economic concept which was ignored at the time of legislation.⁷ As the consumer is psychologically released from the fee-for-service relationship with medical care, the incentive to limit the use of services disappears. The rationing of care has become a reality.

The combination of rising health care expenditures, recent economic recession, and prevailing attitudes of budget reduction makes a solution to the dilemma of health care delivery quite remote.^{1,8} Socialized medicine is more unlikely to achieve prominence now than it was a few short years ago. There is growing opinion that federal health care expenditures should undergo the same scrutiny as any other budgeted program. However, the reduction or limitation of health care supports remain a political liability to the legislator seeking reelection. State and local programs are being reduced in funding as well because of current economic conditions. Consequently, the health care provider and consumer are locked in a double-bind situation without any hope of a reasonable solution.

Sade presented a cogent philosophical argument against the concept of medical care as a right on the premise that it was immoral.⁹ He stated: "if medical care, which includes physicians' services, is considered the right of the patient, that right should properly be protected by government law. Since the ultimate authority of all law is force of arms, the physicians' professional judgement, that is, his mind, is controlled through threat of violence by the state. Force is the antithesis of the mind, and man cannot survive qua man without the free use of his mind. Thus, since the concept of medical care as the right of the patient entails the use or threat of violence against physicians, that concept is anti-mind, therefore anti-life, and therefore, immoral."⁹ Sade claimed that the expropriation of physicians' services (independent businesses) was contrary to constitutional guarantees of freedom. In addition, the patient's rights would be violated by providing a physician perhaps not of his own choice. In short, Sade characterized mandatory social health care systems as contrary to the philosophy of the United States as set forth by the constitution.⁹

Several other authorities have debated the legal and ethical principles of health care rights. Blackstone justified access and administration of health care to all citizens on a philosophical and political basis.¹⁰ His

views were supported by Sparer in large part.¹¹ Telfer, however, refuted principles espoused by Blackstone and Sparer on ethical considerations.¹² Shelton argued that distributive justice in universal health care took precedence over individual justice.¹³ Siegler acknowledged the dichotomy of philosophical issues at hand, most notably the conflict between individual and collective justice, and demonstrated the magnitude of the ambiguity present.¹⁴ It would appear that philosophical arguments can be made on both sides of the issue with equal justification.

Fried analyzed the issue of health care rights from a legal viewpoint.¹⁵ Since a "right" invokes entitlements by necessity, it is a demand of one individual on another. The fact that equality is a constitutional right does not entitle an individual to the possession of another on an equal basis. He compared the "right" to health care with the right to free speech. Even if access to health care were guaranteed under the law, it would not guarantee the equality of health to all. In addition, the fact that more than two-thirds of illnesses require hospitalization or are of the individual's own doing (alcoholism, smoking, drug abuse), does not justify collective contribution to health care. Thus, health care is an individual rather than a collective responsibility, optimally not considered a right.¹⁵

The Physician's Quandary

As the administrator of the quality and quantity of health care provided, the physician is in a unique and quite precarious dilemma. He must attempt to limit the cost of health care under the threat of federal regulations. He must abide by personal and professional ethics. Finally, he must satisfy the patient to whom he attends at the risk of malpractice litigation, particularly in reference to negligence.

Since the issue of health care as a right is not established, the practicing physician must avail himself of precedents in defining negligence, as well as his own code of ethics based on his training and religious belief. It is clear that malpractice litigation has changed the way in which medicine is practiced in this country.¹⁶ Physicians are likely to protect themselves from liability with disclaimers, detailed informed consent, and frequently laboratory evaluation which might not be indicated, but does serve as documentation of care. Indeed, the failure to perform a diagnostic test which results in damage or death to the patient has resulted in judgements in favor of the patient or his family.

Journal of the Kentucky Medical Association

The history of malpractice litigation has defined current standards.^{17,18} Several principles of negligence deserve emphasis.¹⁷

1. The mere occurrence of injury does not prove negligence nor entail liability. This refutes the "res ipsa loquitur" doctrine.
2. Even if negligence is proven, a causal relationship between that action and the plaintiff's injury must be established.
3. Proximate cause may implicate a physician or institution as negligent if the performance or lack of performance of an action was a substantial factor in causing injury.
4. Negligence may not be considered a liability if an injury would have occurred even in its absence.
5. It is the onus of the plaintiff to show a preponderance of evidence that injury was incurred from a negligent act.
6. The physician is not relieved of liability if an act of negligence is confirmed unless he can show that another cause could have produced injury independent of his negligence.
7. Evidence, either direct or circumstantial, may be presented to document negligence.
8. Expert testimony is permitted from disinterested sources to ascertain potential causal relationships and establish the standard of care.

The question of the obligation of a physician to accept a patient in need of care for treatment has been pursued in the past.¹⁸ Wharton stated that the physician was legally absolved of liability by refusing to render service, unless he had a contractual engagement to do so.¹⁹ By embarking in private practice the physician is not encumbered with the onus of providing care to all that reach his office.^{18,19} However, if a pre-existing physician-patient relationship is present, the physician may be held liable for failure to render service, if such is an act causal in an injury.²⁰ In addition, abandonment of a patient under on-going care with resultant injury can be the basis for liability.¹⁸ The physician is not immune from prosecution in refusing to treat a patient currently under care because of outstanding bills.²¹ Patients may not demand that physician travel to his home or render service at inconvenient hours. The care administered by the physician is not expected to be the "best," but only "ordinary" or to an "average" standard for the location and time. Chinese herb medicine and other aberrant practices are not accepted as standards of care in this country, despite their apparent wide-

spread practice elsewhere.¹⁸ A specialist is judged to have a higher level of expertise in his area of practice, and is expected to exhibit a more sophisticated standard of care for his specialty than would be expected of a general practitioner.¹⁸ Failure to perform specific tests including biopsies in suspected malignancy, can result in liability.¹⁸ In regard to experimentation with new techniques or drugs, the only example of judicial action was in the Nuremberg War Crimes Trials for procedures carried out during the third reich.²² Ten precepts for "permissible medical experiment" were outlined.²² The central themes of these guidelines include potential benefit to the patient or to humanity, freedom of choice by the patient, the degree of risk being less than the anticipated benefit, and good faith by the investigator.²² It is clear that the physician is legally obligated to discuss risks, benefits, and hazards with the patient or his benefactors before initiating any treatment course of major consequence, whether experimental or routine.¹⁸

The practicing physician in today's health care milieu have several guidelines on which to base his methods in avoiding litigation.

Conclusion

The definition of health care as a "right" of all human beings in our society has not yet occurred. The obligations and liabilities of physicians are more definable than the rights of their patients, but all require individualized analysis because of the nature of health care and its constant evolution.

References 1. Freeland H, Calat G, Schuendler M: national health care expenditures 1980, in *Health Care Financing Review*, DHEW, 1980, pp 1-27. 2. Locke JA: A letter on toleration (1620). Latin translation by JW Gough. Clarendon Press, N.Y., N.Y. 1968. 3. United Nations General Assembly: The universal declaration of human rights, in *Everyman's United Nations*. N.Y., 1968. pp 349, 586. 4. AMA Substitute Resolution No. 62. Proceedings of the House of Delegates. American Medical Association, Chicago, 1969, p 296. 5. UN General Assembly: Human rights and scientific and technical developments: report of the Secretary General, Addendum. New York, United Nations, November 30, 1980. 6. Meyer VE: Civil rights issues in health care delivery: a consultation given by the U.S. Commission on Civil Rights. *VA Nurse Q* 48:44-45. 1980. 7. Pauly MV: The role of demand creation in the provision of health services. Presented at the annual meeting of the American Economic Association, Dallas, Texas, December 30, 1975. 8. 1980 Republican Party Platform, p 11. 9. Sade, RM: Medical care as a right—a refutation. *N Engl J Med* 285:1288-1292. 1971. 10. Blackstone WT: On health care as a legal right. *Georgia Law Review* 10:391-418, 1976. 11. Sparer EV: The legal right to health care. *Hastings Center Report* 6:39-47, 1976. 12. Telfer E: Justice, welfare and health care. *J Med Ethics* 2:107-111, 1976. 13. Shelton

RIGHT TO HEALTH CARE—Wright

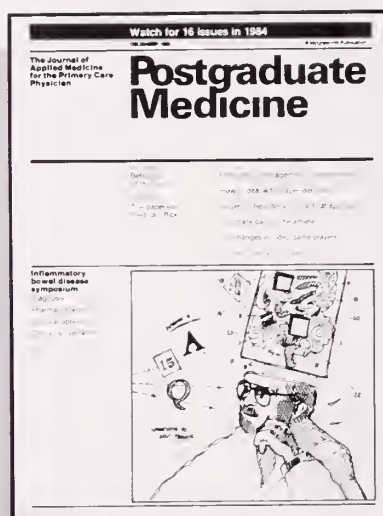
RL: Human rights and distributive justice in health care delivery. *J Med Ethics* 4:165-171, 1978. **14.** Siegler M: A right to health care. *J Med Philosophy* 4:148-157, 1979. **15.** Fried C: Equality and rights in medical care. *Hastings Center Report* 6:29-37, 1976. **16.** Shapiro ED: The history of medical malpractice in the United States and its effect on medical practice in *The Influence of Litigation on Medical Practice*. Clive Wood (ed), Academic Press, London, 1977, pp 6-15. **17.** *Hamil vs. Bashline* 392 Ad Rep. 2d series, 1280-1290, 1978. **18.** McCoid AH: The care required of medical practitioners. *Vanderbilt Law Review* 12:549-632, 1959. **19.** Wharton F: A treatise on criminal law in the United States, 7th edition, Kay and brother, Philadelphia, Pennsylvania, 1874, p 731. **20.** *Cartwright vs. Bartholomew*, 83 GA App. 503, 61 S.E. 2d 323 (1951). **21.** *Ricks vs. Budge*, 91 Utah 307, 64 p 2d 208 (1937). **22.** *Z Trials of War Criminals before the Nuremburg Military Tribunals* 181-182 (1947).

From the Division of Gastroenterology/Hepatology, Department of Medicine, University of Louisville School of Medicine, Louisville, Kentucky.

T U R N

TO POSTGRADUATE MEDICINE

Your single,
most important
source of information
on General and
Internal Medicine!



Each issue filled with diverse practical information in all areas of medical practice including:

- IM Subspecialties
- Pediatrics
- Obstetrics/Gynecology
- Emergency Medicine
- Other Key Clinical Areas

Read every issue

Postgraduate Medicine

Where Clinical Diversity is an Art.

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA



**FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY**

— YOUR FIRST STEP TO FIRST QUALITY PROTECTION —

CONTACT FIELD REPRESENTATIVES

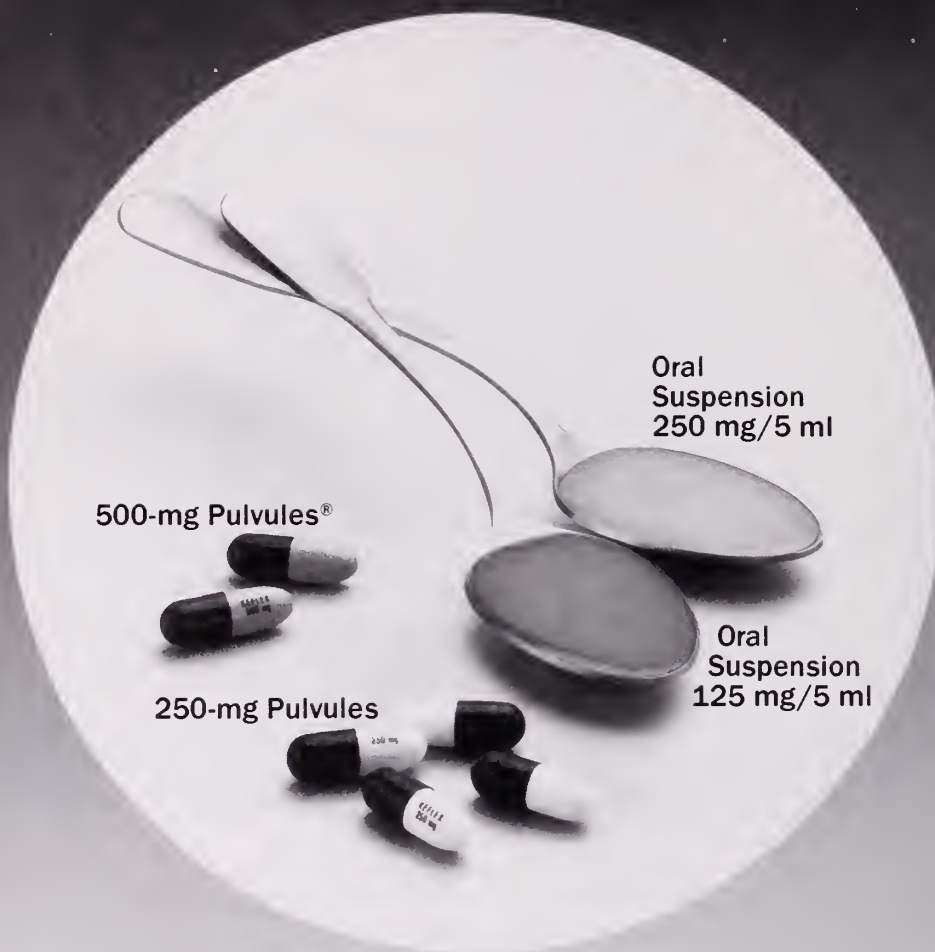
Louisville Office

DONALD G. GREENO
400 Sherburn Lane, Suite 104,
Louisville, Kentucky 40207
(502) 895-5501

Lexington Office

CHARLES E. FOREE
Suite 103B, 152 East Reynolds Road
Lexington, Kentucky 40503
(606) 272-9124

Easy To Take



Keflex[®]
cephalexin

Additional information
available to the profession
on request.



420113

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Book Reviews

Pharmaceuticals in the Year 2000 The Changing Context for Drug R&D

Clement Bezold, Editor

Institute For Alternative Futures, 1983

This book compiles the papers of some seven to eight authors asked to consider the pharmaceutical milieu at the threshold of the 21st century. Before reading on, this book is birthed by the Institute for Alternative Futures—a logo that knee jerks a yellow light reaction. Nevertheless this prospective book—the summary of a conference patronized by Hoffman LaRoche—was intriguing.

Research and development are both the genetic material and the marrow for the pharmaceutical industry. Sometimes an affair with the government, as with the

recent “orphan drug laws,” has to be anticipated and consummated. Likewise, the state of art of diagnosis and certainly treatment must be appreciated to supply the chemicals which are appropriate. Health conditions, longevity, epidemiology and census are discussed. Computers, data consumers, electronic wizardry—these areas are graphically projected.

If you have a curious eye for the crystal ball, and don't take verbatim what it emits, then this short collection will titillate your daydreams of the future.

The Consumers Book of Health— How to Stretch Your Health Care Dollar

Jordan Braverman

Sanders Press, 1982

Actually this 1982 published book is quite informative. Handy sections on health insurance, Medicare and Medicaid are educational, guiding one through the maze of formalities, directing the paper flow and pinpointing the error prone parts. Home health care and Hospice programs are well explained and tantalizing for the reader.

Pharmaceuticals are discussed, paying particular attention to discriminating the differences in generic drugs and their drawbacks. Pharmacies are not ranked by the discounting alone and in fact the integrity of the family pharmacist and individual care with progressing years is adulated.

So far so good! More nettlesome is the second opinion section. In a sophomoric way he suggests that second opinion sought and advice rendered are a panacea against surgical and medical excess. No substantial evidence is presented or rendered. Likewise, when the innocuous title of Physicians Care is a chapter filled with such topics as choosing a physician, single or grouped, what to ask, how to negotiate fees, what pitfalls lurk, and in general adopting an adversary model for patient-doctor relationships. Mirroring this are the respective questions in the dental care chapter, if not more antagonistic.

Health maintenance organization dogma is printed, but cursory, to the betterment of the book. Addresses

BOOKREVIEWS

for the "how to write" are from 1982. Finally a glossary for health insurance lexicon, a bibliography of circa 1978-82 references, and an index which is of little use close the book.

Mr. Braverman's credentials for writing this broad swath through current medical dilemmas are said to be advanced degrees in "health related fields"—read the book for a feel of the public pulse, not for authority.

Dx: recurrent herpes labialis

WILLIAM M. CAMERON, M.D.
123 EAST HIGH ST.

For

R

Herpecin-L
Lip Balm
Sig: q. h.
as needed



"Herpecin-L Lip Balm is the **treatment of choice** for peri-oral *herpes*." GP, New York

"In the management of *herpes labialis*, Herpecin-L is a **conservative approach** with **low risk-high benefit**." Derm., Miami

"Staff and patients find Herpecin-L remarkably **effective**." Derm., New Orleans

OTC. See *P.D.R.* for Information.
For trade packages to make your
own clinical evaluation, write:
CAMPBELL LABORATORIES INC.
P.O. Box 812-N, FDR, NY, NY 10150

In Kentucky, "HERPECIN-L" Cold Sore Lip Balm is available at all
Begley, SuperRx and Taylor Drug Stores and other select pharmacies.



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

Endorsed by the
Kentucky Medical Association



AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

Kentucky
Medical Management &
Computer Operations

KMCO

A subsidiary of KMA Physicians Services, Inc.

For the physician's office

"Tomorrow's Technology is Here Today"

Created exclusively to deal with the specialized needs of the physician's office, KMCO is ready to answer your questions on all phases of practice management and computer technology. We know a more efficient practice is the key to more efficient patient care.

For Additional Information Call Us At:
Louisville Area 451-2095 or 1-800-292-1675
or mail this coupon

Send me further information on

- ☐ Computer Services
- ☐ Consultation
- ☐ Practice Management Workshops

Name _____

Address _____

City _____ State, Zip _____

Telephone _____

Mail to: KMCO
3532 Ephraim McDowell Dr.
Louisville, KY 40205

ASSOCIATION

14th Annual Emergency Medical Care Seminar Executive West Motel June 5, 6, 7, 1984

Sponsored by
Kentucky Medical Association

Tuesday, June 5, 1984

Morning Session

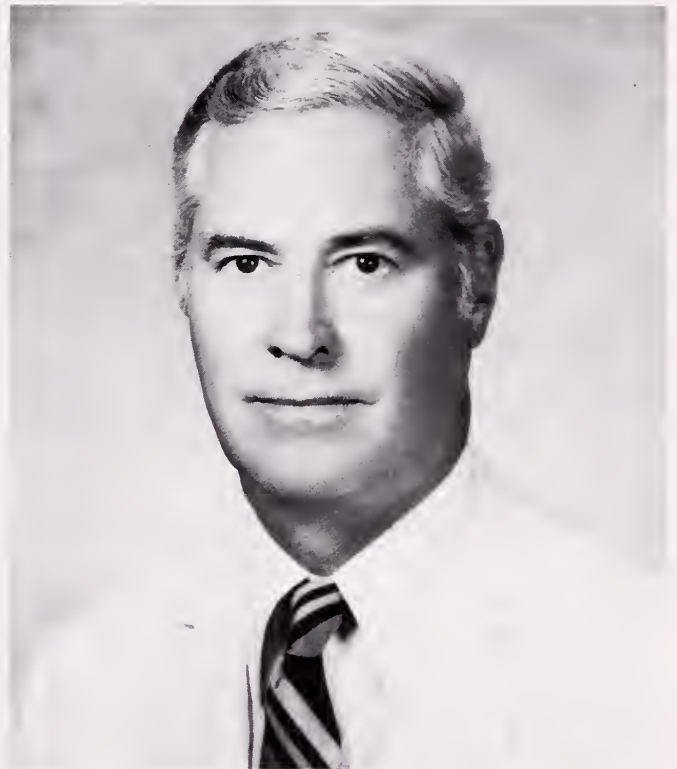
Theme: *Dilemmas in Trauma*

8:00 a.m. Registration
8:40 a.m. Welcome and Orientation
Opening Remarks
E. T. Mays, M.D., Somerset
Moderator: W. Stephen Aaron, M.D., Louisville
9:00 a.m. *Mast Trousers — Pros and Cons*
Donald M. Thomas, M.D., Louisville

9:20 a.m. *Early Care of Head Injuries*
Panel Session:
John F. Shea, M.D., Maywood, Illinois
Marie Henson, R.N., B.S.N., C.E.N., Louisville
Salvatore Vicario, M.D., Louisville
Brad Learn, EMT-P, Louisville
10:00 a.m. Coffee Break
10:20 a.m. *Scoop and Run vs. Field Stabilization*
Steve Ackerman, M.D., Louisville
10:40 a.m. *Early Care of Open Fractures*
John D. Ferguson, M.D., Louisville



John F. Shea, M.D.



ASSOCIATION

- 11:00 a.m. *Flail Chest — Physiologic Derangement and Early Treatment*
Sharon E. Wells, M.D., Lexington
- 11:20 a.m. *Traumatic Amputations*
Thomas W. Wolff, M.D., Louisville
- 11:45 a.m. **Luncheon — Head and Spinal Cord Injuries**
John F. Shea, M.D.
Loyola University Medical Center, Maywood, Illinois

Afternoon Session

- 2:00 p.m. Manual Skills Workshop
Rescue Operations Demonstration
Major Larry Atwell
- 3:00 p.m. *Ice Cream with the Experts*
Table Discussion Leaders:
1. *Certification of Emergency Nurses (C.E.N.)*
Cheryl Westbay, R.N., C.E.N., Louisville
2. *Early Immobilization of Fractures*
John D. Ferguson, M.D., Louisville
3. *Legal Dilemmas of Pre-Hospital Care*
Keith McCormick, Attorney, Louisville
James H. Shewmaker, J.D., EMT-P, Louisville
4. *Legal Dilemmas in Hospital Setting*
Frank B. Alvey, M.D., J.D., Ph.D., Louisville
5. *Psychiatric Emergencies*
David P. Moore, M.D., Louisville
6. *Obstetrical and Gynecological Emergencies*
Robert C. Hughes, M.D., Louisville
7. *Infectious Diseases in the Emergency Room*
(Herpes, AIDS, etc.)
Martin J. Raff, M.D., Louisville
8. *Death & Dying in the Emergency Setting*
Rev. C. A. Lattimer, Louisville, City Police Chaplain
Rev. Isaac N. Kuria, Louisville, Univ. Hospital Chaplain
- 4:25 p.m. Adjournment
- 4:30 p.m. Ky. Emergency Department Nurses Assoc. Meeting.

Wednesday, June 6, 1984

Morning Session

Theme: *New Techniques in Myocardial Disease*

- 8:00 a.m. Registration
- 8:50 a.m. Opening Remarks
Moderator: Barbara Cox, R.N., Louisville
- 9:00 a.m. *New Techniques for the Infarcted Myocardium*
Edward P. J. Todd, M.D., Lexington
- 9:20 a.m. *New Dysrhythmia Agents*
James Christopher Bidwell, R.N., Louisville
- 9:40 a.m. Coffee Break
- 10:00 a.m. *Advances in Field Management of Cardiac Arrest*
James H. Shewmaker, J.D., EMT-P, Louisville

- 10:20 a.m. *Mechanical Dilatation of Coronary Arteries*
Robert R. Goodin, M.D., Louisville
- 10:40 a.m. *Helicopter Transport of the Fresh Infarct*
Jan Roby, R.N., C.E.N., Louisville
- 11:00 a.m. *Non-Invasive Evaluation of Myocardium and Coronary Arteries*
Moderator: Steven Nissen, M.D., Lexington
Panel Session Speakers:
Edward P. J. Todd, M.D.
James H. Shewmaker, J.D., EMT-P
Robert R. Goodin, M.D.
- 11:45 a.m. **Luncheon — Heart Replacement in Kentucky**
Allan M. Lansing, M.D., Louisville

Afternoon Session

- 2:00 p.m. **Concurrent Sessions (choose two)**
Manual Skills Workshops
1. *Diabetes Mellitus*
Sharon Dills, R.N., B.S.N., Louisville
2. *Mast Trousers*
Karen Butterfield, R.N., Louisville
3. *Documentation of Trauma*
James Christopher Bidwell, R.N., Louisville
4. *Extrication Techniques*
Major Larry Atwell
5. *Hazardous Materials*
Officer William A. Wetter, III, BS/EMT-P, Louisville
Officer Robert Hamilton, EMT-P, Louisville
- 3:00 p.m. Break and Switch Sessions
- 3:20 p.m. Continuation of Workshops
- 4:15 p.m. Adjournment

Thursday, June 7, 1984

Morning Session

Theme: *Dilemmas in HEENT Trauma*

- 8:00 a.m. Registration
- 8:50 a.m. Opening Remarks
Moderator: Mary Smith, M.D., Louisville
- 9:00 a.m. *Dental Emergencies*
Timothy W. Logan, M.D., Louisville
- 9:20 a.m. *Management of Epistaxis*
Kenneth L. Silk, M.D., Louisville
- 9:40 a.m. Coffee break
- 10:00 a.m. *Ophthalmic Emergencies*
Lloyd R. Taustine, M.D., Louisville
- 10:20 a.m. *Maxillo Facial Trauma*
Mark Bowden, M.D., Lexington
- 10:40 a.m. *Airway Management*
Dan Danzl, M.D., Louisville
- 11:00 a.m. *Reconstruction*
Leonard J. Weiner, M.D., Louisville
- 11:45 a.m. Adjournment for afternoon activities

ASSOCIATION

Afternoon Activities

(choose one)

1. "An Afternoon at Churchill Downs on Millionaire Row"
2. Lunch and presentation entitled *Potpourri of Emergency Nursing Care* at Executive West
Ree Murakami, R.N., Louisville

Registration

Name _____

Address _____

City _____ St. _____ Zip Code _____

Please register me as follows:

_____ June 5 _____ KMA Member
_____ June 6 _____ Non-member MD
_____ June 6 _____ Nurse
_____ June 7 _____ EMT
_____ June 7 _____ Paramedic
_____ Dentist
_____ Other (Specify) _____

_____ Please register me for the ACLS Program June 5 and 6. (Registrants must be certified in Basic Life Support and have a valid card at time of the course.)

The course will be limited to 30 attendees and registration must be made by May 15.

Please complete the following:

WEDNESDAY, JUNE 6 (choose two)

_____ Diabetes Mellitus
_____ Mast Trousers
_____ Documentation of Trauma
_____ Extrication Techniques
_____ Hazardous Materials

THURSDAY, JUNE 7 (choose one)

_____ An Afternoon at Churchill Downs
_____ Luncheon and presentation

Please return to:

KENTUCKY MEDICAL ASSOCIATION

3532 Ephraim McDowell Dr.

Louisville, Kentucky 40205

(502) 459-9790

Fees

Includes all lunches; workshops; break refreshments; and entrance to exhibits. Those individuals registering for the Thursday session will have their choice of a trip to Churchill Downs or attending the luncheon and presentation entitled "Potpourri of Emergency Nursing Care" at the Executive West.

KMA members, nurses, EMT's, paramedics, dentists

\$20.00 a day

Non-KMA-member physicians

\$40.00 a day

ACLS Program

\$75.00 entire ACLS program

Wednesday Afternoon Workshop

Simultaneous concurrent sessions will be presented. You may choose two of five sessions. First session from 2:00 p.m. to 3:00 p.m., and second session from 3:20 p.m. to 4:15 p.m. Please indicate your choices on the registration form.

Special Hotel Rates

\$38.00 Single

\$42.00 Double

Contact: Executive West Hotel
Freedom Way at Fairgrounds
Louisville, KY 40209
(502) 367-2251

Note: Please indicate that you will be attending the Emergency Seminar.

Thursday Afternoon Activities

Following a morning of scientific presentations, you may choose an afternoon at Churchill Downs or attend the luncheon and presentation entitled, "Potpourri of Emergency Nursing Care." at the hotel. Lunch will be included with each activity. The cost of these activities is included in the Thursday registration fee. Participants must furnish their own transportation to the track. RESERVATIONS FOR CHURCHILL DOWNS ARE REQUIRED.

Accredited for Continuing Education for the following:

NURSES: This course has been approved by the Kentucky Board of Nursing for Contact Hours. Completion of this course is applicable as a requirement of the Kentucky Board of Nursing in fulfillment of the mandatory educational requirements for relicensure. Objectives for the course content are available on request.

June 5 – 6 Contact Hours

Provider Offering #2-00001-85-002-2-1-5

ASSOCIATION

June 6 – 6 Contact Hours

Provider Offering #2-00001-85-003-2-1-5

June 6 (morning) – 3 Contact Hours

Provider Offering #2-00001-85-004-2-1-5

June 7 (afternoon) – 2 Contact Hours

Provider Offering #2-00001-85-005-2-1-5

ACLS Program, (June 5-6). **15 Contact Hours**

Provider Offering #2-0001-85-006-2-1-5

EMTS: Continuing education credit has been awarded by the National Registry of Emergency Medical Technicians.

June 5 – 6 Credits

June 6 – 6 Credits

June 7 (morning) – 3 Credits

June 7 (afternoon) – 2 Credits

FAMILY PHYSICIANS: This program has been reviewed and is acceptable for 11½ Prescribed hours by the American Academy of Family Physicians.

EMERGENCY PHYSICIANS: Credit has been applied for from the American College of Emergency Physicians for **ACEP Category I Credit**.

PHYSICIANS: The Kentucky Medical Association is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. The program is acceptable for **15 hours credit under Category I of the AMA Physicians's Recognition Award**.

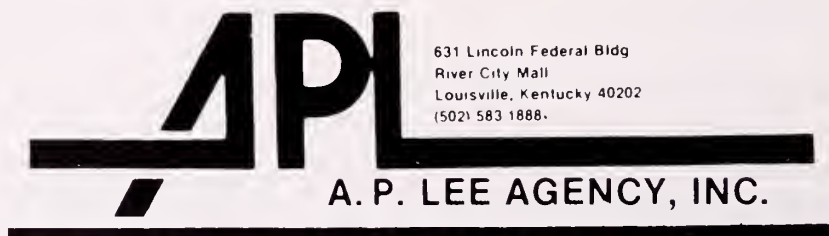
SPRINGTIME

(Time passes quickly)

Some of you are in the spring of your careers (as well as your life); it is a fun time and your expectations and future are bright. Others are in the fall of life—a little older—still pushing a bit too hard, perhaps.

Wherever you are in life, slow down and take time to enjoy your family, friends, and success; and you may never need our disability insurance!

KENTUCKY MEDICAL ASSOCIATION
Disability Income Program



Members in the News

NEW MEMBERS

Boone County

Mary Anne Woodring, M.D.

Boyd County

Evalyn G. Evans, M.D.
Howard Newmark, M.D.
Mary M. Reams, M.D.
James R. Staten, M.D.

Campbell County

Robert N. Lorenz, M.D.
Jeffrey W. Russell, M.D.
Guy M. Sava, M.D.

Casey County

Kenneth Wayne Deeb, M.D.

Christian County

Floro B. Porciuncula, M.D.
Librada B. Porciuncula, M.D.

Clay County

John A. Dondero, M.D.

Daviess County

Albert B. Mercer, M.D.

Fayette County

Wayne D. Back, M.D.
Morris W. Beebe, III, M.D.
Stephen K. Bruno, M.D.
Larry G. Dickson, M.D.
Gary G. Earle, M.D.
Stewart Eidelson, M.D.
Terrance G. Furlow, M.D.
George A. Gehrken, M.D.
Marvin H. Olson, M.D.
Richard E. Powers, M.D.
Pell Ann Wardrip, M.D.
Gerard A. Weigel, M.D.
William O. Witt, M.D.
Robert W. Young, M.D.

Fleming County

Edward C. Standiford, M.D.
Rudianne Thomas, M.D.

Floyd County

Hungi P. Sripal, M.D.

Harlan County

Martin K. Moyes, M.D.
Charles M. Van Duyne, M.D.

Jefferson County

Mickey D. Anderson, M.D.
Joe F. Arterberry, M.D.
Charles C. Barr, M.D.
Stanley B. Benjamin, M.D.
Paula S. Bradnan, M.D.
Gregory L. Brown, M.D.
William J. Brown, Ph.D.
Joseph J. Buchino, M.D.
David F. Bybee, M.D.
Shoshana E. England-Falconer, M.D.
James M. Fetter, III, M.D.
Charles F. Franke, III, M.D.
Gregory E. Gleis, M.D.
Carol L. Goldstein, M.D.
Kenneth R. Gravett, M.D.
Joel A. Horowitz, M.D.
Timothy W. Logan, D.M.D.
Rodney D. McMillin, M.D.
Richard J. Mullins, M.D.
Prasad R. Palakurthy, M.D.
Mark B. Riley, M.D.
Peter W. Ross, Jr., M.D.
Muhammad Seyal, M.D.
Mark T. Stevens, M.D.
Sonia Ruth Teller, M.D.
Daniel M. Tucker, M.D.
Carla J. Turner, M.D.
Rafael Velez-Torres, M.D.
Lance J. Wiist, M.D.
Denise L. Winland, M.D.

Johnson County

Nsunda A. Bangudi, M.D.
Lon C. Hall, M.D.
Robert W. Lowe, M.D.

Kenton County

John Franklin Allnut, M.D.
Gregory A. Frey, M.D.
James H. Linne, M.D.
Perry F. Smith, M.D.
Steven M. Woodruff, M.D.

Lewis County

Gregory F. Pick, M.D.

Madison County

Richard A. Blum, M.D.
Joe T. Davis, M.D.
Christie C. Lewis, M.D.

Martin County

Gregory D. Wells, M.D.

Mason County

Lyle C. Franz, M.D.

McCreary County

Douglas S. Dewar, M.D.

Meade County

Raymond L. Mathis, M.D.

Mercer County

T. C. Van Arsdall, Sr. M.D.

Pike County

Mary R. Johnson, M.D.
Konduru K. Raju, M.D.
Ernestine M. Slusher, M.D.
Periuaruppan Vellayan, M.D.

Pulaski County

Sharada R. Bhandary, M.D.

Rowan County

David W. Victor, Jr., M.D.

Shelby County

Kenneth R. Chasteen, M.D.

Union County

Wallis N. Bell, M.D.

Whitley County

David H. DeLaPena, M.D.

Woodford

Scott H. Zibell, M.D.

NEWS

The Kentucky Medical Management & Computer Operations, Inc. (KMCO) has been fully operational since Jan. 1, 1984, and is offering services with practice management consultations and workshops on "Computers in Private Practice." The company now offers hardware and software services to Kentucky physicians and plans to provide services from the solo practitioner to the large multi-specialty clinics. KMCO is a subsidiary of the KMA Physicians Services, Inc. (Holding Company) and is owned and controlled by the physicians of Kentucky. The office is located in the KMA Headquarters building. For more information on services contact KMCO at this toll free number 1-800-292-1675.

In Memoriam

CHARLES B. STACY, M.D.

Pineville

1901-1983

Charles B. Stacy, M.D., a general practitioner, died December 8, 1983. Doctor Stacy was a 1926 graduate of the University of Louisville School of Medicine and had been a KMA member since 1928.

EARL BLAIR, M.D.

Louisville

1902-1984

Earl Blair, M.D., a general practitioner, died January 26, 1984. Doctor Blair was a 1931 graduate of the University of Louisville School of Medicine and was a life member of KMA.

RICHARD E. DOUGHTY, M.D.

Louisville

1900-1984

Richard E. Doughty, M.D., died February 4, 1984. Doctor Doughty was a 1926 graduate of the University of Cincinnati and a life member of KMA.

WALTER L. WILSON, M.D.

Louisville

1924-1984

Walter L. Wilson, M.D., a family practitioner, died March 2, 1984. He was a 1956 graduate of the University of Louisville and had been a member of KMA since 1958.

LAWRENCE O. BROCK, M.D.

Elkton

1947-1984

Lawrence O. Brock, M.D., died March 5, 1984. He was a family practitioner and a 1973 graduate of the University of Louisville. Doctor Brock had been a KMA member since 1975.

Postgraduate Page

MAY

- 3-5 "Common Clinical Challenges in the Elderly" presented by Philadelphia Geriatric Center and the Medical College of Pennsylvania.
- 5-6 "Update in Cardiac Catheterization and Invasive Cardiology: 1984 — A Weekend Review" ACC and Harvard Medical School, Beth Israel Hospital, Boston, Massachusetts
- 7-11 Nuclear Magnetic Resonance 1984 National Symposium, Hyatt Regency Grand Cypress Resort, Orlando, Florida
- 10-12 The Seventeenth Symposium on Philosophy and Medicine, *Conflicts with Newborns: Saving Lives, Scarce Resources, and Euthanasia*, Mercer University, Macon, Georgia
- 14-18 "Consultant's Course in Cardiology" Mount Sinai School of Medicine (CUNY), New York City, New York
- 17 "Restraining Health Care Costs: Responsibility-Strategies-Solutions" Northern Kentucky University, Highland Heights Kentucky
- 18 "A Seminar on Investigation of Sex Crimes," Johnson City, Tennessee
- 18-19 Vitreous and Vitrectomy Instrumentation, University of Louisville School of Medicine, HSC, Louisville, Kentucky
- 20-25 Fifteenth Family Medicine Review, Hyatt Regency Hotel, Lexington, Kentucky
- 24 Ninth Symposium — Allergy and Immunology, Hyatt Regency, Louisville, Kentucky
- 29-6/2 AACA Spring Seminar in Anesthesiology, Hilton Head Inn, Hilton Head Island, South Carolina

JUNE

- 1-2 "Topics in Cardiovascular Diseases: Cardiac Arrhythmias" American Heart Association-Maryland Affiliate, Inc. Hyatt Regency Baltimore, Baltimore, Maryland
- 5-7 Eighth Annual Institute, American Rural Health Association Lake Bueno Vista Palace, Lake Bueno Vista, Florida
- 6-8 Update in OB/GYN, Hyatt Regency Hotel, Lexington, Kentucky
- 7-9 First Annual Long Island Assembly of Obstetrics and Gynecology "Current Concepts - 1984" Garden City, New York
- 14-16 American Cancer Society National Conference on Radiation Oncology, San Francisco, California
- 14-17 Cincinnati Computer Showcase Expo, Cincinnati, Ohio

JULY

- 7-8 "Neurotrauma Conference" Kings Island Inn, Cincinnati, Ohio

AUGUST

- 2-3 "Stress, Impairment, and the Resident," University of Illinois College of Medicine, Chicago, Illinois

SEPTEMBER

- 1-3 Multispecialty Ophthalmic Plastic Surgery Symposium, Second Annual Meeting, Lexington Marriott Resort Hotel, Lexington, Kentucky
- 3-7 XV International Congress of the International Academy of Pathology, Fountainebleau Hilton, Miami Beach, Florida
- 6-8 14th Annual Peripheral Vascular Disease Symposium, Saint Anthony Hospital, University Hilton Inn, Columbus, Ohio
- 17-20 KMA Annual Meeting, Hyatt Regency/Lexington Convention Center, Lexington, KY

OCTOBER

- 9-14 ASPRS/PSEF/ASMS 53rd Annual Scientific Meeting, Las Vegas, Nevada
- 10-11 12th Annual Fall Pediatric Surgery/Pediatrics Symposium "Care of the Seriously Ill Child," Indianapolis Radisson Hotel, Indianapolis, Indiana
- 14-19 The Ninth Annual International Body Imaging Conference Royal Lahaina Hotel, Maui, Hawaii

NOVEMBER

- 1-2 Eighteenth Annual Newborn Symposium, University of Louisville School of Medicine, HSC, Louisville, Kentucky

DECEMBER

- 8-13 Rhinoplasty-1984, AAFPRS, Key Biscayne, Florida

"Wellness Weekend"

June 7-9, 1984

Barren River State Park
Lucas, Kentucky

Sponsored by the Kentucky Department for Health Services, Division of Local Health, Health Education Unit, Frankfort, Kentucky

Keynote Speakers: Joel Elkes, M.D., Professor of Psychiatry and Director of Division of Behavioral Medicine, U of L. Elaine Sullivan, M.S., counselor and instructor in human development at Richland Community College, Dallas, Texas.

For information and registration: Rebecca T. Ford, Supervisor, Health education Unit, Special Projects Section, Division of Local Health, Dept. for Health Services, 275 East Main St., Frankfort, KY 40621.



SPECTRUM EMERGENCY CARE, Inc.

EMERGENCY MEDICINE

Part-time and full-time positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (8-60 hour shifts). For details write or call:

Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214

1-800-848-2938 / 614-457-9761

All inquiries will be kept confidential

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

FOR SALE

FOR SALE Well established Internal Medicine practice. Grossed \$154,000 in 1983. Will sell all fixtures, furniture etc. Contact Gerald Psimer, 2533 Larkin Road, Lexington, KY 40503.

INTERNAL MEDICINE PRACTICE FOR SALE. Very good location in Lexington, Kentucky. Thriving area. Good potential. Terms negotiable. Please call (606) 278-5824 or (606) 252-6844 (after 6:00 p.m.)

FOR SALE OR LEASE—1958 Westinghouse Radiographic/Fluoroscopic X-Ray Unit, 300 MA, 130 K.V. with Image Intensified, complete with all Rails, weights, transformer and table with Reciprocating Bucky. Recent new tube. Excellent for Doctor's Office or Clinic. \$4,995.00 Contact W. L. Miller, M.D. (502) 338-0331

FOR SALE OR LEASE. Two bedroom, 2½ baths, luxury condo, 21st floor Radisson Plaza, Lexington. All electric kitchen, microwave, washer/dryer. Preferred view. Call (606) 266-4941

FOR LEASE

Hilton Head Vacation Villa Palmetto Dunes—New professionally decorated two bedroom/two bath villa/full kitchen and laundry. Directly on 15th tee of Fazio. Private pool, tennis, near ocean and Shelter Cove Harbor. Dennis R. Molony, M.D., 18 North Fort Thomas Avenue, Fort Thomas KY 41075 (606) 781-5020

MEDICAL OPPORTUNITY

DIAGNOSTIC RADIOLOGIST—Board eligible or certified. Progressive community hospital has added a new wing including an ultra-modern radiology suite. Lovely college town only 45 minutes from Lexington, KY. Excellent opportunity. Send CV to Berea Hospital, Box 128, Berea, KY 40403. (606) 986-3151, ext. 535.

ORTHOPEDIC SURGEON—Board eligible or certified. Recent expansion program includes now orthopedic suite. Beautiful college town in central Kentucky. Excellent opportunity and benefits. Send CV to Berea Hospital, Box 128, Berea, KY 40403. (606) 986-3151, ext. 535.

GENERAL SURGEON—Board Eligible or certified with vascular and thoracic experience. Practice in a small college community in a beautiful new facility. Located in central Kentucky. Can be a solo or possible partnership practice with excellent benefits. Submit CV to Berea Hospital, Box 128, Berea, KY 40403. (606) 986-3151, ext. 535.

ACTIVELY SEEKING OB/GYN & ORTHOPEDIC to join multi-specialty group. Modern well equipped clinic located in beautiful Western Kentucky. Accessible to metropolitan areas such as Nashville, Memphis, Louisville and St. Louis. Guaranteed income the first year, above average benefits, profit sharing. Partnership possible after first year. Send CV to Robert D. Fields, M.D., 220 West Walnut St., Mayfield, Kentucky 42066.

Another general surgeon is needed by small group in rural Kentucky. Excellent medical facilities. Coverage for days off and vacations. Quality place to live. Competitive income. Creative approach to practice of medicine: Primary Care Center, Ambulatory Surgical Center, Urgent Treatment Center, Cost-Plus Pharmacy — All in one building. New well-equipped hospital. Be on the cutting edge of change in health. We offer an exciting opportunity to make a difference in a practice situation unique in the nation. Write or call Peter A. Karis, Administrator, Aaron Medical Center, 300 Bomar Heights, Columbia, Kentucky 42728 (502) 384-4764

OB/GYN with Kentucky license, needed for June/July/August. Permanent position possible. Submit schedule, resume and references to PHYSICIAN, P. O. Box 960, Ironton, Ohio 45638

**Seminar of Health Professionals
May 19, 1984
Porter Memorial Baptist Church
4300 Nicholasville Road
Lexington, Kentucky**

GUEST SPEAKERS:

Lawrence M. Gartner, M.D., Professor and Chairman, Department of Pediatrics, Pritzker School of Medicine, University of Chicago

Nema Desai, M.D., Associate Director Neonatal Intensive Care Unit, University of Kentucky Medical Center

Kate Y. Bryant, R.N., B.S.N, Director of Human Milk Bank, Central Baptist Hospital

TOPICS Include:

The Jaundice Controversy, Slow Weight Gain/Failure to Thrive, Update on Breastfeeding Research

PHYSICIANS: Program approved by the KMA and Accreditation Council for Continuing Education for 4 Hours of Category I Credit.

NURSES: Program approved by the Kentucky Board of Nursing for 6 Contact Hours.

FOR REGISTRATION CONTACT: Doctor Susan Walmer, Eastern State Hospital,
627 W. 4th Street, Lexington, KY 40508

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵ ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY
CONFIRMED BY EXPERIENCE

DALMANE[®]

flurazepam HCl/Roche

THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights^{2,4}
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE[®]
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE[®]
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

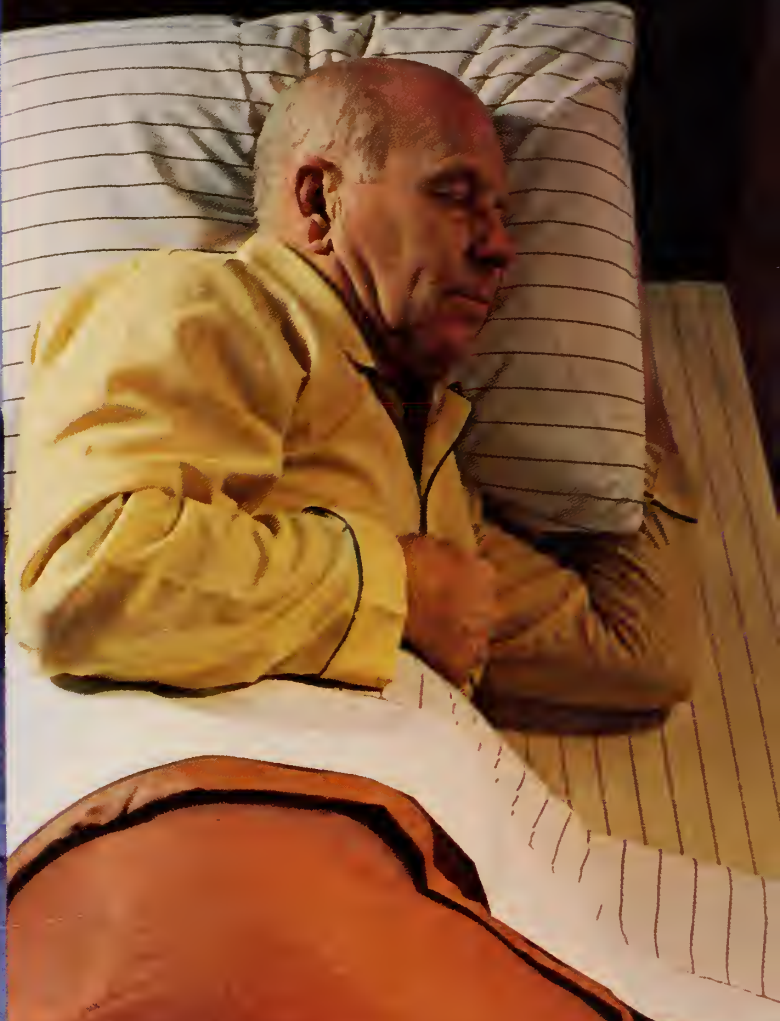
Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

ROCHE Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]

flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES



STACKS

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

PROB
LEMS
OF
CHILD
HOOD

Page 263

The Preferred Underwriter

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 6

June 1984

SCIENTIFIC

- Hearing Loss In Childhood Communication Disorders
Serge A. Martinez, M.D., David R. Cunningham, Ph.D.
Michael B. Nolph, M.D. and Dorothy M. Stein, Ph.D. 263

- Neonatal Herpes Simplex Virus Encephalitis
Robert J. Baumann, M.D., Peter Wong, M.D., John Walsh, M.D.
Robin Gilmore, M.D., Charles Lee, M.D. and H. David Wilson, M.D. 268

- Mortality in Pediatric Cardiac Surgery
Allan M. Lansing, M.D., Ph.D., Roland E. Girardet, M.D. and
Zahi Masri, M.D. 273

- Current Status of In Vitro Fertilization and Embryo Transfer
F.D. DeLeon, M.D. 278

- Anatomic Repair of Transposition of the Great Arteries
(Grand Rounds)
Constantine Mavroudis, M.D. 287

EDITORIAL

- The Market 285

SPECIAL ARTICLE

- Kentucky's Doctors Elkin Contributions to Growth of Emory's
Medical School 291

ASSOCIATION

- Laman A. Gray, Sr., M.D., Retires from McDowell 299
House Board of Managers 300
KMA Increases AMA Membership 302
Nominations Being Accepted for Three Annual KMA Awards 294,303,304
Annual Meeting News 303
Another Member Service 305
Digest of Proceedings, KMA Board of Trustees 305

REGULAR FEATURES

- President's Page 261
Auxiliary 295
Members in the News 301
In Memoriam 250
Postgraduate Page 251
Cover Art by Brenda Piercefield

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific; Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign, (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40403 (606) 986-2323	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1986
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6143	1984

Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6472	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574	1986
4th.....	THOMAS R. TAYLOR, M.D., 914 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th.....	BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111.....	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40342 (502) 839-6981.....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3748	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1984
12th.....	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 324-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

JUNE BUYERS' GUIDE FOR JOURNAL OF KMA

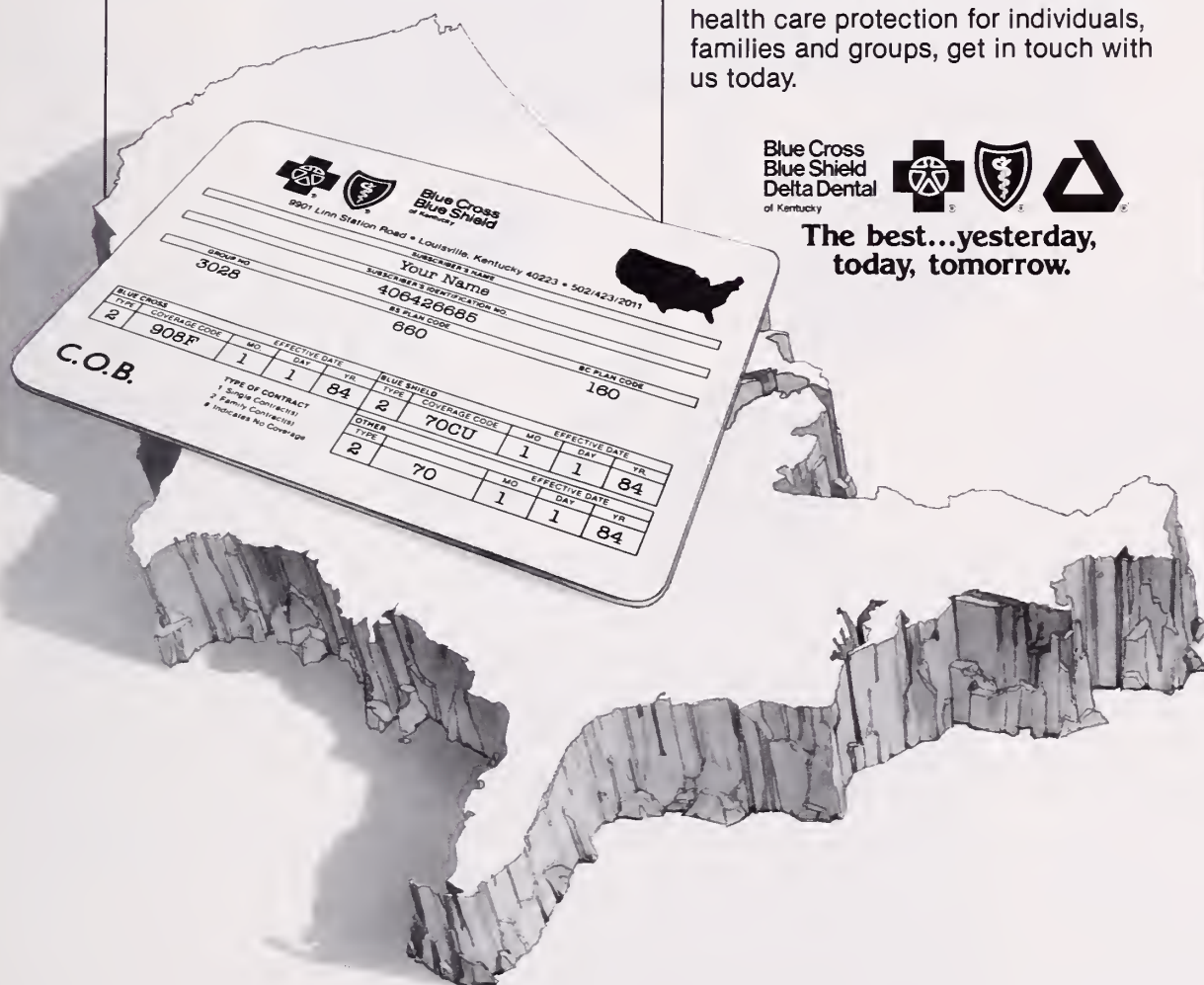
Blue Cross & Blue Shield of Kentucky.....	259	Eli Lilly & Company	260
Classified.....	306	Medical Protective Co.....	283
General Leasing Corporation	306	Pulse Systems	301
Insurance Corporation of America.....	256	Roche Laboratories	307,308
KMCO.....	286	Smith, Kline & Freuch Labs.....	297
KMA Insurance Agency, Inc.	284,290	Spectrum Emergency Care, Inc.....	296
KMIC	262	The Upjohn Company.....	298
A.P. Lee Agency, Inc.....	296		

We've got you covered.

No matter where you travel in the U.S., when you carry the Blue Cross and Blue Shield membership card, you carry assurance and peace of mind. Assurance that your card will be accepted from Maine to New Mexico, from Miami to

Seattle. Peace of mind that you're covered by the leader in health care protection. Can you afford to carry anything less than the best? Blue Cross and Blue Shield of Kentucky ... with you wherever you travel.

For more details about the leader in health care protection for individuals, families and groups, get in touch with us today.



Blue Cross
Blue Shield
Delta Dental
of Kentucky



The best...yesterday,
today, tomorrow.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary Consult the package literature for prescribing information.

Indications and Usage: Cefclor® (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococcus).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: General Precautions—If an allergic reaction to Cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistix® tablets but not with Tes-tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Cefclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Cefclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁵

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

hour. The effect on nursing infants is not known. Caution should be exercised when Cefclor® (cefclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Cefclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis, arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Cefclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

1061782R1

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

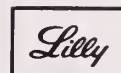
Note: Cefclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., 8: 91, 1975.
2. Antimicrob. Agents Chemother., 11: 470, 1977.
3. Antimicrob. Agents Chemother., 13: 584, 1978.
4. Antimicrob. Agents Chemother., 12: 490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), 11: 860. Washington, D.C., American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., 13: 861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

© 1982, ELI LILLY AND COMPANY

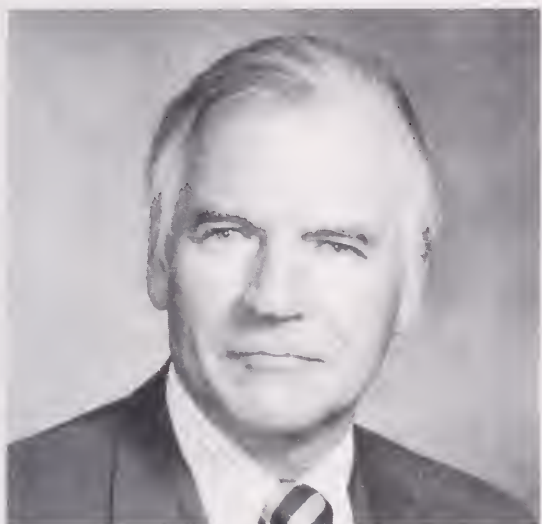


Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

Eli Lilly Industries, Inc. Carolina, Puerto Rico 00630

300035

PRESIDENT'S PAGE



The writer has been fortunate to be a member of a small, traveling surgical club, the Southern Society of Clinical Surgeons, for the last 30 years. We meet at centers throughout the states for a two and a half day program each April. Every fifth year, we go abroad. I have just returned from a marvelous trip to Budapest, Hungary, Vienna, Austria, and Munich, Germany. If anything could open one's eyes to the quality of care in America, a visit to Budapest should do it. Hungary, a nation of 11 million people, is behind the Iron Curtain and regarded as the "Show Place" of Communism. There is little or no rationing; beer, wine, and liquor are plentiful. The people are said to be relatively happy. There are over 11 million tourists to Hungary each year; only about 100,000 Americans. Most of the tourists are Iron Curtain country tourists who come in busloads and are herded about this little Communist garden spot. What a drab bunch of people filing in and out of buses; people from Poland, East Germany, Czechoslovakia, etc. They were dowdy, fat, ill dressed, sullen, wan, and in short, pathetic.

What was most depressing, however, were the Budapest hospitals. The leading institution in Hungary is the Semmelweis Medical School, named after the discoverer of puerperal fever. The hospital, operating rooms, intensive care, and wards reminded me of what our hospitals looked like in the 1930's. The physicians are enthusiastic, bright and long suffering. The conditions under which they work are primitive to the extreme—no private rooms, the smallest unit being an eight bed ward with little iron cots. There are monitors, but they are of the crudest kind. The operating room facilities are crude protocols and the sort of work being done is old fashioned and inadequate. The average physician's

salary is \$100 per month and no private practice. Brick layers are paid just as much, and engineers get more.

Going through these hospitals and talking with the doctors and listening to their research papers made me wish I could get a few of our health planners, and a few of our people who are complaining about the costs and quality of medical care into those hospitals for a day or two. It might show them what real state planning and rationing does for a country. By contrast, the recovery rooms and intensive care units in the Vienna hospitals are in some respects well ahead of ours. Free enterprise and freedom mean a great deal. Most people don't seem to realize it, and certainly the people who are trying to impede American medicine and shackle it down have no conception of free enterprise. They may want to enjoy it in their own profession, but they want to take political advantage of the success that American medicine has had.

When we crossed the line into Austria, the country immediately changed to a garden spot; children were running about and laughing. As we came across the border, the wire fences were there with watch towers every 50 yards. A thorough inspection was made of the train, and it was surrounded by soldiers carrying guns. They came into our compartment and looked under the seats to make sure no one was hiding.

I often think that the letters that go out under my signature as President of this organization have little or no effect. I was indeed pleasantly surprised to get a call from the Kentucky Educational Television system and learn that the appeal I made to each of you members by letter brought in over \$6,000 to the KET network. As a result, the Kentucky Medical Association is being given a Patron Membership to KET. KMA will get a lot of free recognition, and our name will be prominently displayed on a number of publications that the KET network puts out. This is good will that you members bought for Kentucky medicine, we are getting publicity with non-dues dollars, and we have helped people. It is a very heartwarming aspect of this job.

J.B. Holloway, Jr., M.D.
KMA President



**as one physician
to another. . .**



**“Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?”**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company • P.O. Box 35880 Louisville, Ky. 40232

TOLL FREE 1-800-292-1858 • Louisville Area 459-3400

Hearing Loss In Childhood Communication Disorders

SERGE A. MARTINEZ, M.D., DAVID R. CUNNINGHAM, PH.D.

MICHAEL B. NOLPH, M.D. and DOROTHY M. STEIN, PH.D.

Normal communicative ability in humans is predicated primarily on normal hearing acuity. Consequently, childhood hearing loss should be identified as early as possible if rehabilitative measures are to be effective. The effect of hearing loss on educational and social development, "high risk" criteria and current diagnostic techniques are discussed as they pertain to the provider of primary care.

Communication among human beings takes place through various means: listening, speaking, reading, writing, facial expression and gestural and other forms of manual communication. A deficit in any one of these areas will affect the individual's ability to receive or give information. Early impaired hearing, however, is the one sensory deficit that most profoundly affects the educational, vocational and social development of the individual. Speech and language development may be adversely affected when hearing loss occurs before the acquisition of speech and language.¹ As a consequence, the ability to read and write also may be deficient.²

The child who is auditorally handicapped from an early age frequently remains undiagnosed until one or both parents notice that he is not responding to noise or voice stimulation, or that he has failed to develop speech as readily as his siblings. In some children, hearing losses might go undetected until the youngsters demonstrate failure to learn in school or fail a formal school hearing test. Unfortunately, subsequent rehabilitative care often is then based not on an educated approach to the problem, but rather on preconceived notions, such as, the child is too young to obtain a reliable hearing test, or he will outgrow his handicap sometime in the future. Frequently, a physician is the

first professional contact with the child at risk for communication and learning disorders. Consequently, that physician must assume responsibility for ensuring that the child is guided to those individuals who are trained to provide proper diagnosis and remediation of his disability. Ironically, parents who have been questioned feel that physicians aided in diagnosis in only 50% of cases of hearing-impaired children, and actually delayed diagnosis by their recommendations 40% of the time.³ In the majority of children, severe hearing impairment is usually thought to be congenital, yet only 1% of these children are recognized at an early age.⁴ Luterman and Chasin, in interviewing parents of severely hearing-impaired children, noted that a hearing loss was suspected at approximately one year of age, yet this was not confirmed, on the average, until 19.7 months of age.³

Early identification is the key to successful management of communicatively handicapped individuals at any age of development.⁵ Programs established to screen high risk groups of children serve to ensure early diagnosis in those cases where long-term treatment might be needed. In many centers dedicated to the diagnosis and treatment of communication disorders, a team approach is used for screening and in-depth evaluation of high risk individuals. However, even when such a team is not formally organized, the individuals who constitute a working group *ie*, otolaryngologist audiologist, speech and language pathologist and child psychologist and learning disability specialist, are available in most areas of the country and can be consulted as needed.

Hearing and Development

As the main mode of communication among humans, speech is composed of acoustic signals received by the ear. We learn the language of our culture through hearing and subsequently learn to control the organs of our body that we use for speech.⁶ The auditory channel is

the usual and most efficient sensory avenue for acquiring linguistic information and developing communication skills. Our auditory abilities serve to facilitate the development of oral receptive and expressive communication skills. Our learning—social, educational and vocational—is derived from, and depends on our ability to understand and respond to the communication of others.

The hearing-impaired child, in contrast to a child with normal hearing, is at a disadvantage from several perspectives. First, if the hearing loss is no greater than a moderately-severe one (56-70 dB re: hearing level), he may hear loud sounds and voices when they are close, typically when being held. Thus, he may be exposed to some ongoing speech at a loud level. However, when he is in his crib or playpen his hearing loss may prohibit stimulation by auditory, and specifically verbal, stimuli. His exposure to speech and other environmental sounds will be diminished and intermittent at best; this will result in the delayed development of communication skills. He may develop verbal skills from incidental stimulation at close range but at a slower rate as a result of inadequate exposure or sensory deprivation. Children with severe and profound hearing losses (greater than 75 dB) will be unable to make use of any auditory stimulation, even when held, unless amplification is provided.

Second, sensory deprivation interferes with the hearing-impaired child's perception of his environment and those in it. The lack of adequate hearing leaves a child unaware of events outside his visual range. Events may be more startling to the child who has neither heard the sounds from a distance nor anticipated them. In an effort to stay in contact with his environment, the hearing-impaired child learns to monitor his surroundings visually rather than auditorially. He may constantly scan his environment with his eyes in order to remain aware of his surroundings and the people coming and going in them. This behavior, particularly for a school-aged child, frequently may be interpreted as visual distraction, hyperactivity or poor attention by those who are not aware of the youngster's inadequate hearing.^{7,8} The child who has enough hearing to develop some oral communication skills but who has not learned social rules may interrupt others and disturb those around him in the classroom because he is not aware of others' conversations. He may be perceived as being disruptive and as having a behavior problem.⁹ These characteristics are seen also in children with mild fluctuating hearing losses resulting from persistent or recurrent oti-

tis media, as well as children with unilateral hearing losses in which one ear is normal.¹⁰ Children with mild losses (15-30 dB) hear well enough to know that others are talking around them and may even understand what is said. However, they do not consistently hear well enough to follow conversations, directions or stories. They frequently "mishear" and may be accused of ignoring, disobeying or disregarding their parents or teachers. These children and those with unilateral hearing losses have a particularly difficult time in group listening and noisy situations despite adequate hearing at close range in quiet settings. They tire easily and become irritable because they spend a considerable amount of energy trying to listen and hear under less than favorable conditions.

Children with hearing losses, even those with intermittent or mild problems, are at risk for language and speech problems. In general, linguistic deficiencies in children are noted in: 1) vocabulary development and usage; 2) acquisition of grammatical rules of speech; and 3) the development of proper speech articulation, voice quality, speech speed and rhythm. In general, the greater and earlier developed the hearing loss, the greater the effect on speech and language development.¹¹

Given the significant linguistic deficits that can occur with a hearing loss, it should not be surprising that the average educational achievement of hearing-impaired children, particularly those with profound hearing loss, is significantly below that of normally developing children. A study completed by the Office of Demographic Studies at Gallaudet College in Washington, D.C., indicated that in a population of severe-to-profoundly hearing-impaired students aged 16-18, reading comprehension levels were only at a third to fourth grade level.¹² While most studies in this area have dealt with achievement levels of deaf students, investigations concerning children with lesser degrees of hearing loss have indicated substantial deficiencies as well. There is also a growing body of literature describing significant deficiencies in children with mild fluctuating hearing losses which are secondary to middle ear disease. This phenomenon is seen to a lesser extent in children with unilateral hearing loss.¹³

Identification and Diagnosis

How well children with communicative disorders are managed during the early years is directly related to how readily they are identified as being "at risk." Since

hearing loss has been stressed as a major factor in communication disorders, it is important to be aware of diseases or of developmental defects which contribute to decreased hearing acuity. Figure 1 represents an easily remembered format to alert physicians to the high risk infant.

Infants and children with hearing loss require in-depth history taking, physical examination and collaborative data. The history should cover the gestational period, especially the first trimester. A history of bacterial or viral infections (CMV, herpes, rubella, syphilis) or exposure to such infections should be sought.¹⁴ The mother also should be questioned concerning the use of ototoxic drugs during this period; especially important to consider are the use of aminoglycosides,¹⁵ quinine derivatives,¹⁶ or salicylates.¹⁷ Toxemia, diabetes or metabolic disorders of the mother during the pregnancy are other high risk factors; hypoxia, hypoglycemia, low birth weight, prematurity, prolonged or complicated delivery and/or jaundice in the infant should raise suspicion in the mind of the examiner.¹⁸

Family history is particularly important in assessing these children. Since it has been estimated that 50% of deafness is inherited,¹⁹ the hearing status of each family member should be ascertained. If hearing disorders are disclosed, questions regarding the onset, type and progression should be asked. Visible congenital facial and body deformity, possible visual problems, goiter (Pendred Syndrome) or hematuria (Alport's Syndrome) in family members also should be noted. When possible, an actual production of the pedigree may aid in the formulation of transmission patterns and help in further genetic guidance and counseling.

A general physical examination is performed with emphasis on the ear, head and neck structures. Special attention is focused on auricular defects (low set ears, microtia or auricular tags), external canal (atresia), tympanic membranes and middle ear structures. Oral and pharyngeal examinations may disclose defects in dentition or palatal abnormalities such as a cleft (especially submucous) which could impair eustachian tube function.

Collaborative lab studies such as CBC, sedimentation rate, electrolytes, creatinine, T-3, T-4 and FTA-ABS are routinely performed. Cerebral spinal fluid should be obtained when appropriate. Viral titers (toxoplasmosis, rubella, CMV, herpes), electrocardiogram, electronystagmogram, or electroretinogram should be ordered if indicated. In some patients the diagnosis may be obvious; in others tomographic studies or computerized

scanning of the otic capsule and internal auditory canals may be necessary. Table 1 lists possible causes of hearing loss in children.

Audiologic Assessment

About 1-2 per 1000 children are born with severe or profound sensorineural hearing loss.²⁰ The best time to screen for these congenital hearing losses is during the neonatal period, before the infant is dismissed from the nursery. Research on this topic indicates that the application of high risk criteria improves the probability of detecting those neonates with significant hearing loss.²¹

One relatively new device that can be used as a screening tool in the nursery is the automated Crib-O-Gram,²² which senses and records the infant's slightest movements as he responds reflexively to calibrated acoustic stimuli presented automatically by the device to the infant. Some researchers also advocate the use of brainstem evoked response audiometry (BSER) for screening all high risk infants. BSER is a noninvasive technique that measures the amplitude and latency of the stimulus-contingent, synchronous discharges of the auditory nerve and brainstem auditory nuclei.²³ BSER is a test of brainstem function. Although, there is a correlation between this function and auditory activity, statements about the subject's hearing loss should be made with caution. This test should be performed in conjunction with and not instead of behavioral tests. The application of BSER technology in a mass screening situation has not proven to be cost effective. Rather its use is applied to the more complete diagnostic work up on an individual referral basis.

High risk neonates and infants placed in the intensive care unit ideally should be considered for complete and ongoing audiologic evaluation.²⁴ Acceptable response criteria are based on the developmental hierarchy seen in normal hearing infants; *ie*, with increasing mental and developmental age a normal infant displays more refined sound localization and orientation behaviors to progressively fainter acoustic stimuli. The normal hearing baby should also show diminution of reflexes or auditory responses, *ie*, moro, auro-palpebral, *etc*, in response to intense sounds as he matures neurologically. Hearing loss and/or cerebral dysfunction alter these relationships. By using calibrated sound stimuli presented to the infant in the sound-treated booth, the audiologist is generally able to discern the baby's hearing level within limits of accuracy that are sufficient to initiate rehabilitation if necessary. Other physiological or so called objective tests of audition also may be used

TABLE 1.
Etiologies of Childhood Hearing Loss

Pre-Natal	
Maternal metabolic disease:	toxemia, diabetes, hypothyroidism
Rh incompatibility	
Maternal rubella, syphilis	toxoplasmosis
Genetic	
Developmental anomalies:	
Michael's aplasia	Alexander's aplasia
Mondini's aplasia	Canal atresia
Schiebe's aplasia	Ossicular fixation
Delayed Onset:	
Otosclerosis	Usher's syndrome
Alport's syndrome	Sickel-cell anemia
Acquired	
Hypoxia	
Ototoxic drugs	
Meningitis	
Viral: mumps	chicken pox
influenza	cytomegalic inclusion disease
herpes	
External otitis	
Traumatic tympanic membrane perforation with ossicular disruption	
Otitis media with effusion	
Cholesteatoma	
Neoplasm	
Noise	

in this population. One of these tests is based on the determination of the infant's acoustic stapedius muscle reflex threshold. Since there is a relationship between the reflex threshold and the infant's hearing level, the degree and configuration of the hearing loss can often be predicted.²⁵ Electrocochleography (ECOG), a quantification of the eighth cranial nerve action potential, is being used in a few clinics throughout the country.²⁶ The interpretation of ECOG and BSER results should be made conservatively, remembering that these are measures of the anatomic and physiologic status of the cochlea, eighth nerve and brainstem, and not tests of auditory sensitivity and discrimination per se.

In children age two to five the aim is to detect and quantify mild hearing loss and/or ear pathology, since more profound hearing loss should have been discovered long before the child is two-years-old. The complete audiologic evaluation generally will include an assessment of the child's auditory discrimination ability as well as hearing sensitivity. Other children in this age range will tolerate wearing earphones as long as the tests are carried out in a highly controlled, play-

like atmosphere. Accurate pure tone auditory thresholds can be obtained from most children. Impedance audiometry, which is a sophisticated and automated form of pneumo-otoscopy, is designed to quantify tympanic membrane mobility and the integrity of the ossicular chain, assess middle ear and eustachian tube function and register the occurrence of the acoustic stapedius muscle reflex. Pure tone and speech audiometry and impedance testing constitutes the basic diagnostic test battery use with most children in this age range.²⁷

In most instances, the school-aged child is tested like an adult but with age appropriate materials. Screening in the public schools is a time honored tradition that has been reasonably useful in detecting educationally handicapping hearing loss. Unfortunately, the commonly used 25 dB screening level is too liberal and yields many false negative results. Children with active middle ear disease often have hearing levels which are better than 25 dB. These children are not identified as having potential problems unless impedance tests are used as a supplementary screening tool.²⁸

CHILDHOOD COMMUNICATION DISORDERS—Martinez et al

H — HISTORY OF FAMILIAL HEARING LOSS
 E — EARS, NOSE AND THROAT DEFORMITIES
 A — ANOXIA OR LOW APGAR SCORE
 R — RX: OTOTOXIC DRUGS
 I — INFECTIONS: PRENATAL OR PERINATAL
 N — NEONATAL JAUNDICE/KERNICTERUS
 G — GROWTH RETARDATION OR LOW BIRTH WEIGHT

Fig. 1: Format aid for identification of high risk infants.

There is a small group of children whose academic problems are related to their inability to focus their attention on incoming auditory stimuli. A teacher's speech becomes indistinguishable from the background noise of a typical classroom. These children are of average or above average intelligence without perceivable peripheral hearing loss. It is suspected that their defect involves auditory connections in the brainstem and cortex. When a hearing loss is added to such an auditory processing difficulty, a developmental delay of oral and written language skills is even more severe. Children whose academic achievement is lower than expected and who have normal hearing, should be suspected of having auditory processing problems and should be referred for evaluation. Treatment usually involves the manipulation of the child's school curriculum and/or an adjustment in his learning strategies.²⁹

Summary

The ultimate goal in the rehabilitation of children with a hearing disorder is to help each child develop those receptive and expressive communication skills that facilitate social, emotional and cognitive growth and academic and vocational success. As with normal hearing children, it is important for hearing-impaired youngsters to have experiences and opportunities available to them for developing personal and, ultimately, vocational relationships. It is in their best interest to have any hearing problem identified as early as possible so that measures might be taken to alleviate their handicap. To accomplish this, it is important that the primary physician be sensitive to the critical role of hearing in a child's overall development. A child's hearing can be assessed at any age and habilitative measures can be initiated as soon as identification of a hearing loss is made.

Second edition, New York, 238–243, 1964. **3.** Luterman D, Chasin J: The pediatrician and the parent of the deaf child. *Pediatrics* 45:115–116, 1970. **4.** Gentle A: A summary of selected characteristics of hearing impaired students. Washington, DC Office of Demographic Studies, Gallaudet College, Series D, Report 5, 1971. **5.** Martinez SA: Communication disorders in children. *Ear Nose Throat J*, 58(7):286–287, 1979. **6.** Fry D: The role and primacy of the auditory channel in speech and language development. Auditory Management of Hearing Impaired Children. Univ Park Press, Baltimore: 15–43, 1978. **7.** Lewis N: Otitis media and linguistic incompetence. *Arch Otol* 102:387–390, 1976. **8.** Needleman H: Effects of hearing loss from early recurrent otitis media on speech and language development. Hearing Loss in Children, Univ Park Press, Baltimore: 640–649, 1977. **9.** Stein DM: The "hard of hearing" child: an overview. Ear Diseases, Deafness and Dizziness. Harper and Row, Maryland: 636–645, 1979. **10.** Goetzinger CP, Harrison C, Baer CJ: Small perceptible hearing loss: its effect in school-age children. *Volta Rev* 66:124–132, 1964. **11.** Davis J, Hardick E: Rehabilitative Audiology in Children and Adults. John Wiley and Sons, New York, 1981. **12.** Jensema C, Trybus R: Communication patterns and educational achievement of hearing-impaired students. Series T(2). Office of Demographic Studies, Aug 1978. **13.** Ross M: Hard of Hearing Children in the Schools. Prentice Hall, New Jersey, 1982. **14.** Bergstrom L, Stewart J: New concepts in congenital deformities. *Otolaryn Clin No Amer* 4(2):431–433, 1971. **15.** Weinstein AJ, Gibbs AJ, Gallagher M: Placental transfer of clindamycin and gentamycin in term pregnancy. *Am J Obstet Gynec* 124:688–691, 1976. **16.** Schuknecht H: Developmental defects. Pathology of the Ear 182–183, 1974. **17.** Thalmann MD, Tamotsu M, Kusahari J, Ikus I: Normal an abnormal energy metabolism of the inner ear. *Otolaryn Clin No Amer* 8(2):313–333, 1975. **18.** Bergstrom L, Hemenway WG, Downs MP: a high risk registry to find congenital deafness. *Otolaryn Clin No Amer* 4(2):369–399, 1971. **19.** Mounsey DF: Differential diagnosis of hearing loss in children. *Ear Nose Throat J* 58(7):293–296, 1979. **20.** Proctor CA, Proctor B: Understanding hereditary nerve deafness. *Arch Otol* 85:23–40, 1967. **21.** Northern JL, Downs MP: Hearing in children, 2nd edition. Williams, Wilkins, Baltimore: 204–211, 1978. **22.** Simmons FB, Russ FN: Automated newborn hearing screening, the cribogram. *Arch otol* 100:1–7, 1974. **23.** Schulman-Galambos C, Galambos H: Brainstem auditory evoked responses in premature infants. *J Speech Hear Dis* 18:456–465, 1975. **24.** Cunningham DR: Auditory screening in principles of pediatrics: health care of the young. Hoehelman (ed.) McGraw-Hill, New York, 195–202, 1978. **25.** Jerger J, Burney P, Mauldin L, Crump B: Predicting hearing loss from the acoustic reflex. *J Speech Hear Dis* 39:11–22, 1974. **26.** Skinner, P, Glatke TJ: Electrophysiologic response audiometry: state-of-the-art. *J Speech Hear Dis* 42:170–198, 1977. **27.** Jerger S, Jerger J, Mauldin L, Segal P: Studies in impedance audiometry: children less than 6 years old. *Arch Otol* 99:1–9, 1974. **28.** Jordan RE, Eagles EL: The relationship of air conduction audiometry to otologic abnormalities. *Ann Otol Rhinol Laryngol* 70:819–827, 1961. **29.** Barr DF: Auditory perceptual disorders, 2nd edition, Charles C. Thomas, Springfield, Ill., 1976.

From the Divisions of Otolaryngology (SAM and MBN) and Communication Disorders (DAC and DMS), Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky 40292.

References 1. Skinner MW: The hearing of speech during language acquisition. *Otol Clin No Amer* 4(2):631–650, 1978. 2. Mykelbust H: The psychology of deafness. Grise and Stratton.

Neonatal Herpes Simplex Virus Encephalitis

ROBERT J. BAUMANN, M.D., PETER WONG, M.D., JOHN WALSH, M.D.,
ROBIN GILMORE, M.D., CHARLES LEE, M.D. and H. DAVID WILSON, M.D.

The lack of a simple, specific and noninvasive laboratory test for Herpes Simplex Virus (HSV) infection of the central nervous system (CNS) makes the diagnosis of neonatal HSV encephalitis difficult. Early symptoms are often nonspecific with seizures commonly the first clear sign of CNS involvement. Characteristically the cerebral spinal fluid (CSF) shows increased numbers of both red and white blood cells with progressive elevation of the CSF protein. Early in the illness, CT scans can be normal while the EEG and radionuclide scan show focal abnormalities. When encephalitis develops in the absence of skin or mucus membrane infection, it may be necessary to obtain a brain biopsy in order to establish HSV as the responsible agent. Treatment is with vidarabine (Ara-A) while prevention requires the prenatal identification of women with active genital herpes and delivery of their newborn infants by Cesarean section.

Herpes simplex virus (HSV) encephalitis is often difficult to diagnose. Principally, this is because we lack a simple, specific, and noninvasive laboratory test for identification of HSV central nervous system infections. With the advent of effective antiviral drugs such as vidarabine (Ara-A), early diagnosis and prompt institution of therapy have become matters of urgency. The diagnosis of HSV-encephalitis is an especially difficult problem when the patient is a neonate. The central nervous system is immature; thus there are fewer signals to herald the presence of an encephalitic illness. Recent data suggest an epidemic upsurge in the prevalence of herpes simplex genital infections.¹ If true, an increase in neonatal HSV infections can be reasonably expected making the early diagnosis and treatment of neonatal HSV encephalitis a more important and pressing clinical problem.

Herpes Simplex Virus

Herpes simplex virus type 1 (HSV-1) which is associated with most nongenital herpes infections morphologically resembles but is antigenically and biologically distinguishable from herpes simplex virus type II (HSV-2), the virus most often associated with genital infections. HSV-1 and HSV-2 are both DNA viruses. They have a central nucleoprotein core that is surrounded by a protein capsid and a polyamine-lipid-glycoprotein envelope. The envelope is antigenic and gives rise to the production of circulating herpes virus-specific antibodies by the host. The virus infects a cell by penetrating its surface membrane. The envelope and protein coat are then shed and the DNA becomes covalently integrated into the cell's chromatin. There it redirects cell metabolism and initiates its own replication. As new virions become synthesized and assembled they acquire a new envelope from the host's cytoplasmic membrane. During this process, the host cell becomes destroyed and newly formed virus is released.

Source Of The Infection

It is often difficult to determine the exact source or route of infection because transmission of the infection is often a subclinical event. However, most clinical and laboratory data suggest that neonatal infections are usually acquired from genital lesions during or at the time of delivery.² Other mechanisms such as transplacental transmission, ascending infections, and postnatal infection from nongenital lesions (such as oral "fever blisters") have previously been reported but are much less common.³ A mother may be totally unaware that she has active cervical herpes; unless the examiner keeps this in mind, the lesion may also be overlooked or misdiagnosed by her physician. About 75% of neonatal herpes encephalitis is caused by HSV-2. The following two cases are illustrative of our recent experience.

Case Reports

Case I: This 2250 gram, 36 week gestation, white female was delivered to a 20-year-old primigravida by Cesarean section because of prolonged rupture of the membranes (36 hours), maternal fever, and fetal bradycardia. There was failure of progression of labor with cervical ischemia, necrosis and eventual auto-amputation. The mother gave no history of genital herpes and histological examination of tissue from the cervix did not reveal any evidence of HSV infection. The infant was depressed at birth with Apgar scores of three at one minute and six at five minutes. On the fourth day, a vesicular scalp lesion was observed at a site of prior insertion of a fetal monitor electrode. Over the next few days, the number of vesicles increased. Vesicular fluid and scrapings from the base of the scalp were obtained, stained by Wright's method, and examined with the light microscope. Numerous multinucleated giant cells were observed and the patient was transferred to the University of Kentucky Medical Center.

Physical examination at age six days showed no abnormalities except for a 2cm by 2cm scalp area that appeared necrotic and was surrounded by a cluster of vesicular lesions with an erythematous base. A solitary vesicular lesion was also noted above the right eyebrow. Initial examination of the cerebrospinal fluid showed no white blood cells, 10 red blood cells, glucose of 50 mg/dl, and a protein of 65 mg/dl. Routine and viral cultures were negative. Electron microscopy of the vesicular fluid did not demonstrate the presence of viral particles, but repeat examination of a Wright stained smear of the skin lesions confirmed the presence of multinucleated giant cells. Intravenous vidarabine was started at 15 mg/kg/day. Ophthalmologic examination showed positive fluorescein staining of two punctate lesions in her left and one in her right eye. Three percent vidarabine ophthalmic ointment was applied for seven days. When the number of scalp vesicles increased, a repeat spinal tap was performed: 200 white blood cells (80% mononuclear), 160 red blood cells, glucose of 38 mg/dl and protein of 63 mg/dl were found. On her fifth hospital day the dose of IV vidarabine was increased to 30 mg/kg/day. Cessation of appearance of new skin lesions was noted after she had been on the higher dose for three days. HSV was isolated in tissue culture from a throat swab, from skin lesions, and from CSF obtained while the patient was receiving vidarabine at 15 mg/kg/day. A third spinal tap done just before discharge showed slightly xanthochromic fluid with 36 white blood cells (58% mononuclear), 5000 red

blood cells, glucose of 36 mg/dl and a protein of 34 mg/dl. EEG was normal.

At age 18 months, her family physician reports that she is neurologically normal but continues to develop recurrent skin lesions periodically.

Comment

Signs or symptoms of genital herpes are lacking at or near the time of delivery in approximately two-thirds of the women whose babies develop neonatal HSV, thus making the identification of infants at risk a difficult problem.² Vesicular skin lesions are the hallmark of HSV infection. Even if the neonate has these skin lesions at birth the diagnosis may be missed if the examiner is not alert to this possibility. Among those infants who have only skin lesions at initial presentation, about 70% go on to develop involvement of other organs (brain, eye, oropharynx) or disseminated disease.² In the small number of neonates who appear only to have skin lesions, approximately one-third are found to manifest severe neurologic or ocular sequelae when older. Clearly neonates presenting with isolated skin lesions must be aggressively evaluated and treated.³

Case II: This infant, who was the product of an uncomplicated pregnancy, labor and delivery, did well until four weeks of age when she became a little drowsy and fussy after feedings. Four days before admission she began to sleep through her meals. That night she developed a temperature of 101°F which was attributed to a cold. Two days later she developed a right-sided focal seizure. A lumbar puncture showed 123 lymphocytes, 76 red blood cells, glucose of 36 mg/dl and protein of 128 mg/dl. She was started on Dilantin and Phenobarbital. Nevertheless, the seizures persisted and she was transferred to the University of Kentucky Medical Center.

Upon admission to the hospital the infant was seen to be having right-sided seizures. Deep tendon reflexes were abnormally brisk and she had clonus at both ankles. She had no skin or mucosal lesions. Spinal fluid findings were unchanged. She then had an emergency CT scan with and without contrast (performed on a fourth generation machine) which showed normal findings and a radionuclide brain scan which revealed focal areas of uptake over the left hemisphere. An electroencephalogram demonstrated periodic, high amplitude, polyphasic sharp waves arising from the left central-temporal region. A presumptive diagnosis of HSV encephalitis was made and on the night of admission a left frontal

brain biopsy performed. Vidarabine treatment was begun in the recovery room.

Light microscopy of the biopsied tissue showed an intense and predominantly mononuclear, inflammatory infiltration of the meninges. Numerous neurons were seen that contained homogeneous, eosinophilic, intranuclear (Cowdry type A) inclusions. Transmission electron microscopy of the tissue revealed single and clumped intranuclear viral particles of the appropriate size and appearance for herpes virus. HSV was subsequently isolated from the biopsied brain tissue.

Although at first the child seemed to be responding to vidarabine, she subsequently developed increasing numbers of seizures and further neurologic deterioration. As her condition worsened, her spinal fluid glucose level diminished (reaching a low of 14 mg/dl), her spinal fluid protein increased (maximum 1125 mg/dl), red cells peaked at 2130/cm³ and WBC peaked at 125/cm³. A repeat radionuclide scan showed diffuse uptake over the entire brain. Her EEG showed loss of the previously seen periodic discharges. The background was very low voltage but not isoelectric. Her CT scan showed generalized atrophy with diffuse, small radiodense areas especially in the subcortical areas. She died at four months of age without autopsy.

Comment

The early signs of neonatal herpes encephalitis in this patient were nonspecific and consisted of fussiness, poor eating and increased sleeping. The first dramatic sign of central nervous system dysfunction occurred as focal seizures. The fever noted in this child is not always observed. No skin lesions were ever seen, and the infant's mother had no history suggestive of genital HSV infection. Diagnosis depended upon the clinical recognition that seizures in a neonate can be caused by HSV infection and the prompt performance of appropriate laboratory tests. Electrolytes and glucose were also examined and were normal. Infants with HSV encephalitis often have a stormy course with frequent seizures, inability to feed and respiratory embarrassment requiring intensive nursing care. Moreover, the infection may not respond satisfactorily to therapy. Therefore, careful clinical monitoring and repeated laboratory studies are required as both the above cases illustrate.

Routine Laboratory Tests

Although we lack a simple, noninvasive laboratory test diagnostic for neonatal HSV encephalitis there is

a pattern of test results which is suggestive of this disorder. This pattern includes a spinal fluid containing increased numbers of both red and white blood cells reflecting the necrotizing nature of the infection. The red blood cells which can number as high as 10,000 are often wrongly ignored or attributed to a traumatic tap. The white blood cells usually number less than 300 and show a mononuclear cell predominance. Initially the CSF glucose is normal and accompanied by mild elevation of CSF protein. As the disease progresses the glucose can drop to levels traditionally associated with bacterial infections.³ EEG and radionuclide brain scan are also sensitive indicators of encephalitis. Early in this illness both tests tend to show focal cortical abnormalities. Very early in the illness EEG may be diffusely slow but at the time clinical abnormalities are present, there are usually focal or unilateral periodic discharges. After seven to 10 days, the EEG again may become diffusely slow.⁴ Thus serial EEG recordings may be necessary. Though the temporal lobe is often involved, neonates are likely to show evidence of focal infection involving other cortical areas while lacking the temporal lobe predominance characteristic of older children and adults. Early in the illness the CT scan is likely to be normal. As the illness progresses, CT evidence of focal and then generalized destruction becomes apparent and scattered radiodense lesions may appear. The finding of focal abnormalities on EEG and radionuclide scan with a compatible spinal fluid profile and a normal CT scan (to help rule out hemorrhage or brain tumor) is strongly suggestive of neonatal herpes encephalitis.^{2,3,4}

Specific Diagnostic Tests

Laboratory diagnosis is easier when lesions are readily accessible for examination. Ballooning degeneration of cells, multinucleated giant cells and intranuclear inclusions can be demonstrated in smears from skin, mouth, conjunctival or corneal lesions using Wright or Giemsa stain. Electron microscopy of vesicular fluid or thin sections of other clinical specimens may demonstrate viral particles. This method cannot differentiate herpes simplex virus from varicella-zoster virus.

When no superficial lesions are available it is important to obtain diagnostic tissue by biopsy. Equally important is the need to handle this tissue appropriately so that light and electron microscopy as well as viral culture can be performed on the specimen that is obtained. While a presumptive diagnosis can be made on the basis of cytopathologic findings and specific therapy

initiated pending culture results, isolation of virus is the most sensitive and specific diagnostic method and is necessary for definitive diagnosis. Specimens placed on ice may be taken promptly to an adjacent virology laboratory. For shipment, clinical specimens should be frozen at -70°C and shipped in dry ice. It speeds diagnosis to notify the laboratory in advance (UK laboratory can be called at 606-233-6323 or 233-5411).

Treatment

Vidarabine (Ara-A) is the only antiviral agent of proven efficacy in herpes simplex encephalitis.⁵ Although a dose of 15 mg/kg per day has usually proven adequate for adults, this may not be true for neonates. For these patients a 14-day course at the dose of 30 mg/kg is more likely to give adequate blood levels and to be effective.⁶

As our two cases illustrate, the earlier that infants are diagnosed and treated *ie* Case 1, the more likely they are to have favorable outcomes. As a practical matter this means that the early presence of skin lesions is an important diagnostic clue; if the skin lesions are correctly identified and treatment is promptly initiated, brain injury may be minimized.

Prevention

Because of the difficulties inherent in the diagnosis of HSV encephalitis and the propensity of the herpes virus to rapidly destroy cells in the central nervous system prevention will remain important no matter what improved antiviral drugs are developed. Since most neonatal herpes infections are due to direct infant inoculation upon passage through the birth canal, effective prevention begins with the identification of pregnant women who are shedding HSV at or near the time of delivery. Thus, we recommend that pregnant women with a history of recurrent genital herpes, with a sexual partner with genital herpes or with evidence of active genital HSV lesions be cultured at regular intervals during the latter part of pregnancy. A reasonable schedule is to culture every two weeks from 32 to 36 weeks and then weekly thereafter. If active genital lesions are detected or there is virus being shed at or immediately before the time of delivery, the baby should be delivered by Cesarean section, preferably within six hours of rupture of the membranes. The potential of introducing infection via fetal monitoring leads which pass through an infected area should be remembered. If there are no active genital lesions and the two weekly cultures before delivery are negative, vaginal delivery is appro-

priate. It is also important to guard against the postnatal acquisition of HSV infection by keeping neonates from contact with HSV lesions, the most common being oral herpes (fever blisters).^{2,3,6} Herpes simplex viruses can be readily cultured by an appropriately equipped laboratory and a number of laboratories provide this service including ours at the University of Kentucky.

Summary

As a result of the increased prevalence of genital HSV infections, we anticipate seeing increasing numbers of neonates with HSV in the future. It is probably significant that in 1982 we treated three infants who had HSV encephalitis without skin or other lesions; a heretofore rare manifestation of this illness. We hope that an increased effort to detect HSV genital infections during pregnancy will reduce the number of infected infants.

Physicians caring for infants and for pregnant women need to keep the following points in mind:

1. Neonatal HSV infection may be increasing as a result of the rising prevalence of genital herpes.
2. Many such infections can be prevented by the aggressive identification of pregnant women with both symptomatic and asymptomatic genital herpes and the delivery of their infants by Cesarean section before or within six hours of rupture of the membranes.
3. Herpes encephalitis can occur without any accompanying skin lesions. The initial symptoms may be subtle and nonspecific such as increased sleepiness, decreased appetite, and irritability.
4. EEG, radionuclide brain scan, and lumbar puncture are helpful in suggesting this diagnosis but are not diagnostic. CT scan is usually normal early in the course of this illness which helps to eliminate some other diagnostic possibilities.
5. When infection is limited to the central nervous system, accurate diagnosis requires a brain biopsy with the ability to obtain light microscopy and viral cultures promptly and reliably. In our opinion it is unwise to routinely use anti-HSV agents to treat patients with viral encephalitis without simultaneously attempting to establish that the infective agent is actually herpes simplex virus.
6. The treatment of systemic and central nervous system infections due to HSV has become pos-

sible only recently. Future changes in recommended agents, doses and dosage schedules is to be expected. Nevertheless, in treating such a necrotizing viral infection prompt institution of therapy will remain important.

References 1. Visintine AM, Nahmias AJ, Josey WE: Genital Herpes. *Perinatal Care* 2:32, 1978. 2. Whitley RJ, Nahmias AJ, Visintine AM, Fleming CL, Alford CA: The natural history of Herpes Simplex virus infection of mother and newborn. *Pediat* 66:489, 1980. 3. Nahmias AJ, Whitley RJ: Herpes Simplex virus encephalitis in pediatrics. *Pediatrics in Review* 2:259, 1981. 4. Mizrah EM, Tharp BR: A characteristic EEG pattern in neonatal Herpes Simplex encephalitis. *Neurol* 32:1215, 1982. 5. Whitley RJ, Nahmias AJ: Vidarabine therapy of neonatal Herpes Simplex virus infections. *Pediat* 66:495, 1980. 6. Rand KH: Herpes Simplex virus: Clinical syndromes and current therapy. *Comprehensive Therapy* 8:44, 1982.

From the Departments of Neurology, Pediatrics, Surgery and Diagnostic Radiology of the University of Kentucky.

Authors' Note

Since submission of this manuscript, Whitley *et al* have demonstrated no difference in outcomes between neonates with HSV encephalitis treated with vidarabine 15 mgs. per kilo per day and those treated with 30 mgs. per kilo per day.

Reference Whitley RJ, Yeager A, Kartus P, *et al*: Neonatal Herpes Simplex Virus Infection: Follow Up Evaluation of Vidarabine Therapy. *Pediatrics* Volume 72, p. 778-785, 1983.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Mortality in Pediatric Cardiac Surgery

Review of a Seven-Year Experience With 944 Operations

ALLAN M. LANSING, M.D., Ph.D., ROLAND E. GIRARDET, M.D. and ZAHY MASRI, M.D.

The surgical mortality for congenital heart defects operated upon from 1976 through 1982 has been reviewed. Eight hundred eighty patients underwent 944 operations, resulting in overall 60-day patient and operative mortality rates of 8.7% and 8.1%, respectively. Patient age at the time of operation and complexity of the lesions were the most important factors influencing the results. These results are discussed in light of recent improvements in the surgical management of pediatric cardiac patients.

Materials And Methods

Eight hundred eighty patients with congenital heart disease underwent operation at Children's Hospital in Louisville, Kentucky from 1976 through 1982. A total of 944 operations were performed, including 425 open heart procedures and 519 closed heart procedures [Table 1]. Patient age ranged from prematurity to late adolescence.

Open heart surgery was conducted with cardiopulmonary bypass using a disposable bubble oxygenator. Before 1978, myocardial protection was accomplished by topical hypothermia and intermittent aortic cross-clamping; cold potassium cardioplegia was used thereafter. Total circulatory arrest with profound hypothermia to 16°C by core cooling was used for patients weighing less than 15 pounds in certain procedures requiring prolonged cross-clamping of the aorta and in other selected cases. In all others, cardiopulmonary bypass was conducted with a high flow and moderate hypothermia to 28°C. Blood was added to the prime for

patients who weighed less than 30 pounds. Otherwise, the initial priming solution did not include blood, which was used only for prolonged operations or in cases of large blood loss. At the end of the procedure, the content of the extracorporeal reservoir was returned to the patient and diuresis was induced by the administration of furosemide. Patients who had total circulatory arrest received steroids and anticonvulsants at the end of the operation.

Results

Seventy-seven patients died within 60 days of operation. This represents an 8.7% patient mortality and 8.1% operative mortality (4.8% for closed procedures and 12.2% for open heart procedures). Mortality related to the various congenital heart diseases encountered is shown in Table 1, and specific causes are discussed below. Comparative mortality rates for each lesion were computed from an extensive literature review and are also listed in Table I.

The influence of age on the operative mortality is shown in Table II. Below three months of age, the overall mortality was 11.7% in 324 operations (7.7% in 296 closed heart procedures and 53.5% in 28 open heart procedures). Above three months of age, the overall mortality was 6.3% in 620 operations (0.9% in 223 closed heart procedures and 9.3% in 397 open heart procedures).

1. **Ventricular septal defect (VSD):** Pulmonary artery banding was performed in 20 babies with four deaths, one in a 1200 gm premature infant. Seventy-

TABLE I.
Operative mortality according to diagnosis, procedure, and age

Diagnosis	Patient Mortality	Operative mortality			Literature review	
		Closed heart operations	Open heart operations	All operations	Mortality	
					Mean	Range
VSD	8.7% (8/92)	20.0% (1/20)	5.0% (1/79)	8.0% (8/99)	7.4%	0%-21%
ASD II	0.0% (0/68)	---	0.0% (0/68)	0.0% (0/68)	1.1%	0%-4%
ASD I	0.0% (0/18)	---	0.0% (0/18)	0.0% (0/18)	6.5%	4%-11%
TGV	8.1% (4/49)	33.3% (2/6)	1.2% (2/47)	7.5% (4/53)	7.8%	0%-26%
PS	6.8% (3/14)	6.6% (2/30)	1.7% (1/21)	5.9% (3/51)	20.1%	3.6%-50
TOF	15.5% (7/45)	5.0% (1/20)	14.3% (6/42)	11.3% (7/62)	7.0%	0%-14.8
ECD	25.6% (10/39)	7.6% (1/13)	30.0% (9/30)	23.2% (10/43)	20.0%	0%-37%
AS (supra)	0.0% (0/5)	---	0.0% (0/5)	0.0% (0/5)	4.8%	0%-7.6%
AS (valv)	14.6% (6/41)	---	14.3% (6/42)	14.3% (6/42)	10.7%	0%-60%
AS (sub)	0.0% (0/7)	---	0.0% (0/8)	0.0% (0/8)	5.6%	0%-7.7%
AR	14.3% (1/7)	---	12.5% (1/8)	12.5% (1/8)	3.4%	0%-6%
DORV	50.0% (7/14)	12.5% (1/8)	60.0% (6/10)	38.9% (7/18)	24.5%	0%-34%
TA	0.0% (0/15)	0.0% (0/18)	0.0% (0/2)	0.0% (0/20)	18.6%	0%-50%
TAPVR	8.3% (1/12)	0.0% (0/1)	9.0% (1/11)	8.3% (1/12)	27.1%	0%-48%
SV	71.4% (5/13)	26.6% (1/15)	100.0% (1/1)	31.2% (5/16)	38.0%	0%-100%
MR/MS	27.3% (3/11)	---	27.3% (3/11)	27.3% (3/11)	18.5%	0%-33%
Truncus	77.7% (7/9)	33.3% (1/3)	100.0% (6/6)	77.7% (7/9)	40.0%	0%-75%
Cor. TGV	0.0% (0/4)	0.0% (0/2)	0.0% (0/3)	0.0% (0/5)	20.0%	0%-23%
IAA	83.3% (5/6)	60.0% (3/5)	100.0% (2/2)	71.4% (5/7)	40.0%	0%-75%
PDA (prem)	0.5% (1/208)	0.5% (1/208)	---	0.5% (1/208)	0.0%	
PDA (child)	0.0% (0/106)	0.0% (0/107)	---	0.5% (1/107)	1.1%	0%-2.4%
CoA (isol)	2.2% (1/46)	2.2% (1/46)	---	2.2% (1/46)	1.8%	0%-25%
CoA (mult. anom.)	33.3% (4/12)	28.5% (4/14)	---	28.5% (4/14)	22.9%	0%-44.4%
Misc.	30.7% (4/13)	0.0% (0/3)	40.0% (4/11)	28.5% (4/14)		
TOTAL	8.8% (77/880)*	4.8% (25/519)	12.2% (52/425)	8.1% (77/944)		
				7.8%** (73/925)	8.5%**	(1118/13199)

[% Mortality (No. deaths/Total no. patients)]

*4 patients listed twice because multiple operations.

**For comparison; excluding Cor. TGV and miscellaneous.

nine open heart operations were performed with four deaths; primary VSD closure was done in 52 patients with two deaths, while VSD closure with pulmonary artery debanding was done in 24 patients with one death.

2. **Atrial septal defect (ASD):** No deaths occurred with repair of secundum ASD (68 patients) or primum ASD (18 patients).

3. **Transposition of the great vessels (TGV):** Six palliative procedures were performed with two deaths, one following a Blalock-Hanlon procedure and the other following PDA ligation. Total correction was done with the Mustard procedure in 24 patients with one death and the Senning procedure in 18 patients with no deaths.

4. **Pulmonary stenosis (PS):** Closed operations were performed in 30 patients with two deaths; valvotomy with a mosquito clamp was used to treat 10 newborns

with critical pulmonary stenosis accounting for both deaths. Closed valvotomy with a Himmelstein valvotome was used in 17 children.

5. **Tetralogy of Fallot (TOF):** Palliative procedures in 20 patients included 16 Blalock-Taussig shunts with one death, and three Potts shunts and one Waterston shunt without deaths. Primary total correction was done in 22 patients with three deaths; total correction following previous shunts was done in 17 patients with three deaths.

6. **Endocardial cushion defect (AV communis):** Palliative procedures included pulmonary artery banding in seven patients with one death, Blalock-Taussig shunts in four patients, and Potts and Waterston shunts in one patient each. Primary total correction was performed in 21 children with eight deaths and total cor-

TABLE II.

Operative mortality according to age.

Diagnosis	<3 months		>3 months	
VSD	30.7%	(4/13)	4.6%	(1/86)
ASD II	0.0%	(0/1)	0.0%	(0/67)
ASD I	---		0.0%	(0/18)
TGV	33.3%	(2/6)	4.2%	(2/47)
PS	16.6%	(2/12)	2.5%	(1/39)
TOF	12.5%	(1/8)	11.1%	(6/54)
ECD	0.0%	(0/1)	23.8%	(10/42)
AS (supra)	---		0.0%	(0/5)
AS (valv)	66.6%	(6/9)	0.0%	(0/33)
AS (sub)	---		0.0%	(0/8)
AR	---		12.5%	(1/8)
DORV	33.3%	(1/3)	40.0%	(6/15)
TA	0.0%	(0/8)	0.0%	(0/12)
TAPVR	12.5%	(1/8)	0.0%	(0/4)
SV	57.1%	(4/7)	11.1%	(1/9)
MR/MS	100.0%	(2/2)	11.1%	(1/9)
Truncus art.	100.0%	(3/3)	66.6%	(4/6)
Cor. TGV	---		0.0%	(0/5)
IAA	71.4%	(5/7)	---	
PDA (prem)	0.5%	(1/208)	---	
PDA (child)	0.0%	(0/6)	0.0%	(0/101)
CoA (isolated)	11.1%	(1/9)	0.0%	(0/37)
CoA (with mult. anom.)	33.3%	(4/12)	0.0%	(0/2)
Misc.	100.0%	(1/1)	23.0%	(3/13)
TOTAL	11.7%*	(38/324)	6.3%**	(39/620)
* Closed heart procedures: 7.8% (23/296)				
** Closed heart procedures: 0.9% (2/223)				
Open heart procedures: 53.5% (15/28)				
Open heart procedures: 9.3% (37/397)				

[% Mortality (No. deaths/Total no. patients)]

rection following previous PA banding in eight patients with one death.

7. **Aortic stenosis (AS):** Emergency valvotomy in nine newborns resulted in six deaths. No deaths occurred with valvotomy in 21 children, three of whom underwent concomitant resection of a subaortic valvular stenosis, or with aortic valve replacement in nine patients, eight of whom had previous valvotomies. Patch enlargement of the left ventricular outflow was done in three of these patients. No deaths occurred in five patients treated for supravalvular aortic stenosis, five who underwent resection of fixed subaortic stenosis, or two who had myotomy for treatment of IHSS.

8. **Double outlet right ventricle (DORV):** Palliative procedures included PA banding in seven babies with one death and a subsequent Blalock-Taussig shunt in one. Total repair (three times after PA banding and once following Waterston shunt) in nine patients resulted in five deaths.

LEGEND to Tables I and II

VSD	ventricular septal defect
ASD II	atrial septal defect secundum
ASD I	atrial septal defect primum
TGV	transposition of the great vessels
PS	pulmonary stenosis
TOF	tetralogy of Fallot
ECD	endocardial cushion defect (AV communis)
AS (supra)	aortic stenosis, supravalvular
AS (valv)	aortic stenosis, valvular
AS (sub)	aortic stenosis, subvalvular
AR	aortic regurgitation
DORV	double outlet right ventricle
TA	tricuspid atresia
TAPVR	total anomalous pulmonary venous return
SV	single ventricle
MR/MS	mitral regurgitation/mitral stenosis
Truncus	truncus arteriosus
Cor. TGV	corrected transposition of the great vessels
IAA	interrupted aortic arch
PDA	patent ductus arteriosus
CoA	coarctation of the aorta

9. **Total anomalous pulmonary venous return (TAPVR):** One patient with anomalous return to the coronary sinus and hypoplastic left ventricle was treated by PA banding and PDA ligation. Total correction was performed in four patients with return to a vertical vein, in four patients with return to the coronary sinus, and in four patients with return below the diaphragm. One death occurred in the latter group.

10. **Truncus arteriosus (truncus):** Palliation by PA banding was performed in one child who died, and by Potts shunt in two patients. Total correction was attempted in six patients with no survivors.

11. **Single ventricle (SV):** Palliation was obtained by PA banding in eight patients with four deaths, by Blalock-Taussig shunt in four, by Glenn shunt in two, and by Potts shunt in one.

12. **Aortic regurgitation (AR):** Eight patients underwent aortic valve replacement, the only death occurring in a patient who had staphylococcal septicemia and brain abscess at the time of operation.

13. **Mitral stenosis/mitral regurgitation (MS/MR):** Mitral valve replacement was performed in eight patients with three deaths. One of these deaths occurred in a patient with corrected transposition and situs inversus who died six months postoperatively from myocarditis and renal failure. A two-year-old child with VSD, mitral valve atresia, and diminutive left ventricle also died, as did a two-month-old baby.

14. **Interrupted aortic arch (IAA):** Palliation with arch reconstruction in four patients (plus PA banding

in two) resulted in three deaths. Open heart closure of VSD and arch reconstruction failed in two babies.

15. **Patent ductus arteriosus (PDA):** Two hundred eight premature babies weighing 600-2000 gm had ligation of the PDA under local anesthesia with death in one patient from bleeding. Ligation or division of the PDA was performed in 107 older babies and children with one recurrence and no deaths.

16. **Coarctation of the aorta, isolated (CoA):** Resection with end-to-end anastomosis was performed in eight patients, most of whom were newborns, with one death. Thirty-eight other patients had repair by patch graft, subclavian aortoplasty, or bypass graft.

17. **Miscellaneous:** Closure of an aorto-pulmonary window, (one) closure of congenital coronary artery fistula, (two) closure of a left ventricular-right atrial canal, (one) and closure of a recurrent VSD following DORV correction (one) were all performed without deaths. Two patients had cardiac neoplasm resection with one death. One patient died after VSD closure following pulmonary valve replacement, one after correction of VSD, pulmonary atresia, and tricuspid regurgitation following a Waterston shunt, and another after correction of VSD in corrected TGV, pulmonary stenosis, and dextrocardia. Other miscellaneous procedures include division of a double aortic arch (two) and reattachment of an anomalous right subclavian artery and PDA ligation (one).

Discussion

Mortality in pediatric heart surgery is directly influenced by the complexity of the lesions to be repaired and by the age of the patient at the time of the repair. The complexity of the cardiac lesion represents the more important risk factor, as demonstrated by the statistics of Table I. The average mortality figures from the literature review were obtained by pooling together a very heterogeneous group of reported series over a period of 10 years. Currently, however, lower mortality rates are obtained both in our own experience and in selected published series.

Complicated lesions generally produce higher operative mortality, but the overall risk is influenced by whether total repair, palliation alone, or a combination of both is sought. As expected, the incidence of death was lowest among those with congenital heart diseases which could be corrected by closed heart procedures. Even in the premature infant, PDA closure can be accomplished with near-zero mortality, as reported by others. Pulmonary valvular stenosis in children with

mobile valves has preferably been treated in our practice by closed valvotomy with a Himmelstein valvotome. This simple procedure has provided good long-term results without recurrences or significant valvular insufficiency, as good as those obtained by open valvotomy. Isolated coarctation of the aorta was treated by a patching technique in preference to resection and anastomosis.

Mortality ranged from 0% to 100% for correctable or potentially correctable congenital heart diseases treated by open heart procedures and was directly related to the magnitude of the operative repair. Congenital mitral valve stenosis represents a technical challenge because of the diminutive sizes of the mitral annulus and left atrium. An original solution was applied in one patient in whom an extracardiac valved conduit was inserted between the apex of the left ventricle and the left atrium. Ventricular septal defect closure and correction of tetralogy of Fallot were performed with similar mortalities whether the repair was primary or followed previous palliative procedures. A mortality of 4.6% for VSD closure in patients over three months is in agreement with reported series in the literature, but the overall 11.1% mortality accompanying repair of tetralogy of Fallot is higher than expected from other reports. Both figures have decreased in our recent experience. The Mustard technique was used initially for treating transposition of the great vessels, but because of problems with arrhythmia in the immediate postoperative period and later scarring with deformity of the baffle, we switched to the Senning repair which seems to obviate these complications and which is technically easier. Our results compare very favorably with other large series. Atrio-ventricular communis, double outlet right ventricle, and truncus arteriosus remain lesions with a high operative mortality, which reflects the technical difficulty of total repair.

For congenital heart diseases in which only palliation was feasible, the operative mortality varied widely in relationship to the severity of the underlying defect. Pulmonary valve stenosis or atresia with intact ventricular septum in newborns was approached by the unconventional closed-valvotomy technique in which a small mosquito clamp was used to perforate the diminutive valve and forcefully stretch it. This procedure has given satisfactory median-term results and seems to offer a simpler solution than other recommended techniques. It is understood that later definitive surgery, usually a valvectomy, will be necessary. Similar acceptable results have unfortunately not been obtained in the treat-

ment of congenital aortic valvular stenosis in the newborn, a notoriously difficult anomaly to treat. Patients with interrupted aortic arch and those with coarctation of the aorta associated with other defects also suffer a high mortality; these multiple and complex lesions produce poor results whether they are treated palliatively or with an attempt at total repair.

Age of the patient at the time of surgery is a second major factor influencing the overall result. Mortality for open heart surgery was 9.3% in 397 operations performed in children more than three months of age versus 53.5% in 28 operations performed in infants younger than three months. Mortality for closed heart surgery was 0.9% in 223 operations performed in patients over three months versus 7.8% in 296 operations performed in infants under three months of age. Age of three months is a generally accepted limit above which the operative mortality drops significantly. This markedly increased risk in smaller babies is directly related to the small size of the structures operated upon and the complexity of the lesions, and hence is an important consideration in recommending total versus palliative repair. Despite the trend toward definitive repair at a younger age, a combination of early palliation followed by later total repair still remains an alternative therapeutic approach for individual patients until more evidence proves that earlier total repair improves the long-term outlook enough to justify the increased operative risk.

References

A list of selected references is available upon request of the authors.

Acknowledgements

The authors thank John Harkess, M.D. and Mallory Salsitz for their help in compiling the patient data. We particularly acknowledge the assistance of Marilyn Wullschleger Schrader in reviewing the literature, overseeing the statistics, and editing the manuscript.

From 718 Medical Towers North, 624 South Floyd Street, Louisville, Kentucky 40202. Contribution from the Heart Institute of Kentucky, Inc.

Current Status of In Vitro Fertilization and Embryo Transfer

F.D. DE LEON, M.D.

The current availability of techniques for in vitro fertilization and embryo transfer have provided an opportunity for many women, who would otherwise be sterile, to bear children. The current status of these procedures, including criteria for patient selection, basic steps in the procedure, consideration of success rate and risks of congenital abnormalities are summarized.

On July 25, 1978, the first baby conceived by means of in vitro fertilization (IVF) and embryo transfer (ET) was born in Oldham, England, to a woman who had occluded tubes.¹ This birth was the culmination of more than a decade of work by Edwards and Steptoe. Previously, this procedure had only been carried out successfully in smaller mammalian species such as the rabbit, mouse and guinea pig.² In vitro fertilization has gradually shifted from an experimental to an accepted therapeutic procedure.

The introduction of a procedure that can bypass damaged fallopian tubes has brought new hope to many infertile couples and has encouraged physicians to learn more about its applicability. Centers specializing in IVF have now opened their doors in many parts of the world. In the United States the team of physicians at Eastern Virginia Medical School was the first to offer IVF to infertile couples and reported the first successful birth in December, 1981.³ In the past two years medical centers in many more states, including Kentucky, have begun to offer this service to the community. To date, there are more than 20 institutions offering IVF in the United States and more than 200 pregnancies have been reported throughout the world.⁴

The purpose of this review is to provide an understanding of the techniques involved in IVF and to highlight the most recent developments in this field. The procedure is outlined in Table 1.

Patient Selection

The criteria for patient selections is presented on Table 2. Absent or damaged fallopian tubes is the most frequent indication for IVF at the present time. This also includes patients who have had previous salpingectomies, failed tuboplasties, as well as those patients with nonrepairable and obstructed fallopian tubes resulting from pelvic inflammatory disease, or nonreversible sterilizations.

Through the extensive work of the well-established centers such as those at Cambridge, England, Norfolk, Virginia, and Melbourne, Australia, it has been possible to extend the indication for IVF to other infertility problems, such as low sperm counts, sperm antibodies, unexplained infertility, and endometriosis. Pregnancies resulting from IVF have now been reported in patients presenting with these problems.⁵ The upper age limit for patients accepted into IVF programs varies between 35 and 40.

Preliminary Investigations

Before accepting patients into the program, it is crucial to perform certain screening tests, including a basal body temperature recording for at least two consecutive months, as well as serum progesterone level or an endometrial biopsy to confirm ovulation and adequacy of luteal phase endometrium. A recent semen analysis to determine whether a male factor is contributing to the etiology of the infertility is also necessary. Finally, if the patient has had previous abdominal operations, it may be necessary to determine the extent of pelvic adhesions and accessibility of the ovaries by performing a screening diagnostic laparoscopy. These preliminary steps are essential in selecting patients who are likely to benefit from the procedure, and to avoid useless expense and effort from inappropriate candidates.

Journal of the Kentucky Medical Association

IN VITRO FERTILIZATION—DeLeon

TABLE 1.

Steps Involved in IVF

1. Patient Selection
2. Preliminary Investigations
3. Follicular Stimulation and Monitoring
4. Laparoscopic Retrieval of Oocytes
5. In Vitro Fertilization
6. Embryo Transfer
7. Confirmation of Pregnancy

TABLE 2.

Indications for IVF

1. Damaged or Absent Fallopian Tubes
2. Oligospermia
3. Sperm Antibodies
4. Failed Conservative Surgery for Endometriosis
5. Unexplained Infertility

TABLE 3.

Comparison of Pregnancy Rates by IVF and ET at Three Established Centers During 1982

	Univ. of Melbourne		
	Norfolk	Australia	USC
Laparoscopies	175	372	62
Eggs Recovered	146	346	60
Eggs Fertilized	145	299	55
Transfers	135	272	50
Pregnancies	33	55	9
PREGNANCY RATE	19%	14.8%	14%

Follicular Stimulations and Monitoring

In the early attempts of IVF in England and Australia, natural menstrual cycles were monitored for timing of ovulation and oocyte recovery. Efforts at recovering oocytes during natural menstrual cycles have been abandoned because of an unacceptably low pregnancy rate.⁶ Presently, all centers stimulate follicular development with either clomiphene citrate (Clomid®), or human menopausal gonadotropins (hMG, Pergonal®). Each of these agents recruits the development of several follicles, thus increasing the probability of obtaining more than once oocyte at the time of laparoscopy. The results using stimulated cycles have clearly proven to be superior to those of normal cycles as evidenced by an increase in pregnancy rates now ranging between 17% and 20%.⁶ Clomiphene citrate is given orally in doses ranging between 50 to 150 mg for five consecutive days, beginning on cycle day three. Pergonal® (hMG) is a combination of pituitary gonadotropins, luteinizing hormone (LH), and follicular stimulating hormone (FSH), and is administered as an injection. Two ampules, containing 150 units FSH and 150 units LH, are typically

Figure 1.

PROTOCOL USED FOR PERGONAL STIMULATION OF CYCLES

1. PERGONAL (hMG) Two ampules of Pergonal® 1.M. are given beginning on Day 3 of cycle and continued until any one or more of the following parameters is observed:
 - A. Serum estrogen is 300 PG/ML with optimum cervical mucus
 - B. Serum estrogen is 600 PG/ML regardless of mucus quality
 - C. Ultrasound size of mature follicles at least 1.7 cm.
2. hCG 10,000 units of hCG are given 50 hours after the last dose of Pergonal
3. LAPAROSCOPY 36-37½ hours after the injection of hCG laparoscopy is performed for retrieval of oocytes

prescribed beginning on day three of the cycle and continued until follicular maturation is considered optimal.

The cycle is monitored by assessing daily cervical mucus characteristics, measuring daily follicular growth by sector scan ultrasound and by measuring daily serum estrogen levels. When clomiphene citrate is used, it is also necessary to measure serum or urine LH to detect spontaneous ovulation. If a preovulatory surge of LH is detected the cycle is abandoned since the timing for ovulation is unpredictable, making the egg retrieval yield by laparoscopy almost impossible. Patients given Pergonal®, unlike those given Clomid®, usually do not ovulate spontaneously. This eliminates the necessity for measuring daily LH. To induce ovulation, 10,000 units of human chorionic gonadotropin (hCG) are given after appropriate follicular stimulation has been achieved. This hormone is very similar biologically to LH in that it stimulates further maturation of oocytes and induces ovulation within 38 to 40 hours following its injection. This hormone allows coordination for proper timing of laparoscopy which is usually performed 37 hours after hCG administration. Typically, hCG is given at 8:30 p.m. and laparoscopy is scheduled for 7:30 a.m., two days later. This hormone can also be administered to patients receiving clomiphene citrate to avoid spontaneous ovulation. In spite of this, an occasional patient will spontaneously ovulate, an event that can be determined by assessing daily plasma LH levels.

Pergonal® induction is preferred by the Norfolk group, and will also be utilized at Norton Hospital, Louisville, Kentucky. A flow sheet of the process of induction of ovulation is presented in Figure 1. Pergonal® is discontinued when any one or more of the parameters measured is considered optimal. This occurs when the mucus becomes abundant, clear, noncellular, and easily

IN VITRO FERTILIZATION—DeLeon

stretchable, the serum estrogen level is at least 300 pg/ml and the ultrasound measurement of the largest follicle is at least 1.7 cm. If one or more of these parameters is optimal, Pergonal® is withheld for 50 hours, at which time 10,000 units hCG is administered, followed by laparoscopy 36 hours later.

Laparoscopic Retrieval of Oocytes

The recovery of the oocytes involves a routine laparoscopy with the addition of one or two other small abdominal punctures allowing access to the peritoneal cavity organs. One puncture is used for placement of a grasping forceps which stabilizes the ovary. The other puncture is used for inserting a 12 gauge needle which is used to penetrate the follicles to aspirate the follicular fluid in which the oocyte is contained.

In Vitro Fertilization

Immediately after the follicular fluid has been collected, it is taken to the laboratory located adjacent to the operating room. Using a dissecting microscope, the oocytes are identified, separated from the follicular fluid and transferred to individual plastic dishes containing Hams F-10 incubation medium containing 7.5% fetal cord serum. The oocytes are incubated in an environment of 95% air and 5% CO₂, 100% humidity and a temperature of 37°C. After an initial period of incubation ranging from six to 24 hours, depending upon the initial oocyte maturational state, the oocytes are ready for fertilization. Sperm which has been obtained from the patient's husband is washed with incubation medium, and also allowed to incubate for a period of four to six hours prior to fertilization of the oocytes. This interval of time insures that capacitation takes place. Sperm capacitation is a process involving changes in the acrosome which makes possible penetration of the sperm through the surrounding cumulus cells, zona pellucida and oocyte membrane resulting in fertilization.⁷

The earliest evidence of fertilization is the presence in the oocyte of two pronuclei representing the genetic material from both parents.⁸ At this stage, the embryo is still in the one-cell stage and is surrounded by a cloud of granulosa cells. Often these granulosa cells have to be dispersed to allow visualization of the pronuclei.

At this point, the fertilized embryo, also referred to as conceptus, is transferred to a growth medium consisting of Ham's F-10 plus 15% heat inactivated fetal cord serum. Embryo transfer is performed after cell

division takes place. The two-cell stage is usually achieved within 33 hours.⁹ All oocytes that cleave in a normal fashion are transferred to the patient, since it has been shown that multiple embryo transfer increases the likelihood of achieving a pregnancy.¹⁴ Although embryo transfer can be accomplished at the two-cell stage, incubation is continued to the four to eight-cell stage, which occurs between 38 and 50 hours after insemination.¹⁰

Embryo Transfer

The transfer procedure involves gently loading the embryo with approximately 0.15 ml of growth media into a teflon catheter, which has a blunt end and a small side opening. The patient is placed in the knee-chest position if her uterus is anteverted, or in the dorsal lithotomy position if the uterus is retroverted. After cleansing the cervix, the catheter containing the embryo is gently inserted into the uterine cavity, where the embryo is released. The catheter is immediately inspected under magnification to insure that the embryo has been released. The procedure of embryo transfer is performed in the operating room using a sterile technique without the need for anesthesia.

Following transfer, the patient remains at bed rest for four to six hours and is asked to remain at bed rest at home as much as possible for the next two days and avoid strenuous physical exercise for the next two weeks. Jones¹¹ recommends 250 mg tetracycline four times daily during the day before and the day of the embryo transfer to avoid a possibility of infection. Also, beginning on the day of the transfer, Marrs⁶ recommends 25 mg of progesterone intramuscularly for 10 days to supplement endometrial development needed for adequate implantation.

Success Rate of IVF

The continued improvement of IVF pregnancy rates can best be exemplified by the Norfolk experience.¹² In 1980 there were 41 attempts with no pregnancies resulting. In the first half of 1981 two pregnancies resulted from 31 attempts, giving a 6% pregnancy rate. The second half of 1981 proved very fruitful for this group, with five pregnancies resulting from 24 attempts, or a 21% pregnancy rate. In the largest series reported by the Norfolk group, covering most of 1982,¹³ 175 consecutively induced cycles of patients with obstructed tubes resulted in a pregnancy rate of 19%. This study revealed, however, that the patients' ultimate pregnancy success rate depended on their estro-

Journal of the Kentucky Medical Association

IN VITRO FERTILIZATION—DeLeon

gen response to Pergonal® stimulation. A pregnancy rate of 23% was achieved in 75 patients of this group who responded with continued elevation of estrogen levels. Those patients whose estrogen response did not follow the optimal pattern had a pregnancy rate varying between 8 and 16%.

Other established centers, such as Royal Women's Hospital in Melbourne, Australia, reported a pregnancy rate of between 9.3% and 23.2%, depending upon whether clomiphene citrate, or the combination of clomiphene citrate plus Pergonal® was used for stimulation.¹⁴ Those patients using the combined drugs had the highest success rate. The overall pregnancy rate in 1982 was 14.8%.

During the same year at the University of Southern California Medical Center, nine pregnancies occurred in the 62 patients who were candidates for the IVF program.¹⁵ A summary of the results of IVF at these three established centers in 1982 is shown in Table 3. The overall pregnancy rate ranges between 14% and 19%. It is important to note, however, that it is possible to induce higher pregnancy rates in certain subgroups of patients who are treated solely with Pergonal® and respond with increasing levels of estrogen throughout the stimulation. These "high" responders have a consistent pregnancy rate of at least 23%.

Risk of Congenital Abnormalities

With the number of pregnancies approaching 300 and more than 125 births reported, there is no evidence at this time that these children born by IVF have an increased incidence of congenital anomalies. There has been only one abnormality reported with this procedure, consisting of a cardiac malformation in a newborn which was subsequently corrected by surgery.¹⁹ Although this data is reassuring, the number of births is still small and most children have been followed for only a few years. Whether any subtle defects will become evident later in life remains to be seen.

Costs

The estimated cost per cycle varies, depending on the program, between \$4,000 and \$5,000. Usually half of the total cost is required prior to initiating a treatment cycle. The total amount is roughly divided into 50% for hospital expenses, 25% outpatient laboratory tests and medication and 25% professional fee.

Coverage for IVF services by third-party payers has been very uncertain because they consider this procedure "research." However, in some cases part of the

costs may be covered by insurance. Because of this, all patients are assisted in submitting claims for possible partial reimbursement.

Discussion

In vitro fertilization and embryo transfer has now become an accepted medical procedure that provides an opportunity for fertility among women previously considered sterile. The field of IVF is continuously changing, with improvements made almost daily. Within the last few years it has been shown that Pergonal® induction, transfer of multiple embryos, and maintenance of strict quality control in the laboratory improves the success rate of IVF. Presently, the average success rate of IVF in established centers is approximately 20%. Although this figure may seem low, one must keep in mind the inefficiency of human reproduction. It has been estimated that the probability of pregnancy from a single coital exposure in a healthy couple is approximately 31%.¹⁶ Assuming this rate is an upper limit set by nature, it is reasonable to anticipate that IVF will soon approximate this natural pregnancy rate.

Of the various steps involved in IVF, implantation of the embryo seems to be the least understood, and is the step where most of the failures occur. Most centers are able to fertilize 75-80% of the eggs recovered by laparoscopy, but the pregnancy rate quickly falls to approximately 20% after transfer. Reasons given for the low implantation rate include endometrium that is out of phase with the stage of embryo development,¹⁷ deficiencies in media conditions that do not sustain proper embryo growth,¹⁸ and simple technique problems arising from catheter placement in the uterus.

With continued research in IVF, the area of embryo transfer will become better understood and result in an increased pregnancy rate. This technique may also soon replace other complicated surgical procedures, such as difficult or repeat salpingostomies that offer less chance of pregnancy and higher morbidity.

It has been stated that IVF has helped us reach a new era in modern obstetrics and gynecology.²⁰ Now we must take advantage of this procedure and increase its availability to selected patients with problems of infertility.

References 1. Steptoe PC, Edwards RG: Birth after the reimplantation of a human embryo. Letters to the Editor, *Lancet*. 1978; 11:366. 2. Chang MC. In vitro fertilization and development of mammalian eggs. In: Talwar GP, ed. Regulation of Growth and Differentiated Function in Eukaryote Cells. New York: Raven Press;

IN VITRO FERTILIZATION—DeLeon

- 1975; 499–507. **3.** Garcia JE, Jones GS, Acosta AA, Wright G: Human menopausal gonadotropin/human chorionic gonadotropin follicular maturation for oocyte aspiration: Phase 1, 1981. *Fertil Steril*, 1983; 39:167–173. **4.** Gould KC: Ovum recovery and in vitro fertilization in the chimpanzee. *Fertil Steril*, 1983; 40:378–383. **5.** Johnston L, Lopata A, Speirs A, Hoult I, Kellow G, DuPlessis Y: In vitro fertilization: the challenge of the Eighties. *Fertil Steril*, 1981; 36:699–706. **6.** Marrs RP: In vitro fertilization's future looks bright. *Contemp OB/GYN*, 1982; 20:135–144. **7.** Evans MI, Mukherjee AB, Schulman JD: Human in vitro fertilization. *Obstet Gynecol Surv*, 1980; 35(2):71–81. **8.** Wolgemuth DJ, Blake EJ: Changes in egg and sperm before and during fertilization. *Contemp OB/GYN*, 1982; 20:196–202. **9.** Edwards RG, Purdy JM, Steptoe PC, et al: The growth of human preimplantation embryos in vitro. *Am J Obstet Gynecol*, 1981; 141:408–416. **10.** Wood C, Trounson A, Leeton J, Talbot JM, et al: A clinical assessment of nine pregnancies obtained by in vitro fertilization and embryo transfer. *Fertil Steril*, 1981; 35:502–508. **11.** Jones HW, Acosta AA, Garcia JE, Sandow BA, Veeck L: On the transfer of conceptuses from oocytes fertilized in vitro. *Fertil Steril*, 1983; 39:241–243. **12.** Jones HW, Jones GS, Andrews MC, Acosta A, Bundren C, Garcia J, et al: The program for in vitro fertilization at Norfolk. *Fertil Steril*, 1982; 38:14–20. **13.** Jones HW, Acosta A, Andrews MC, Garcia JE, Jones GS, et al: The importance of the follicular phase to success and failure in in vitro fertilization. *Fertil Steril*, 1983; 40:317–321. **14.** Lopata A: Concepts in human in vitro fertilization and embryo transfer. *Fertil Steril*, 1983; 40:289–301. **15.** Marrs RP, Vargyas JM, Saito H, Gibbons WE, Berger T, Mischell DR: Clinical applications of techniques used in human in vitro fertilization research. *Am J Obstet Gynecol*, 1983; 146:477–481. **16.** Biggers JD: In vitro fertilization and embryo transfer in human beings. *N Engl J Med*, 1981; 304:336–342. **17.** Edwards RG, Steptoe PC, Purdy JM: Establishing full-term pregnancies using cleaving embryos grown in vitro. *Br J Obstet Gynaecol*, 1980; 87:737–756. **18.** Kreitman O, Hodgen GD: Retarded cleavage rates of preimplantation monkey embryos in vitro. *JAMA*, 1981; 246:627–629. **19.** Wood C, Trounson A, Leeton JF, Renou PM, et al: Clinical features of eight pregnancies resulting from in vitro fertilization and embryo transfer. *Fertil Steril*, 1982; 38:22–29. **20.** Petrie RH: Taking a fresh look at in vitro fertilization. *Contemp OB/GYN*, 1983; 20:194.

From the Division of Reproductive Endocrinology and Infertility, Department of Obstetrics and Gynecology, University of Louisville School of Medicine, Health Sciences Center, Louisville, Kentucky 40292. Reprint requests to: Texas Tech University, Health Sciences Center, Dept. of Obstetrics and Gynecology, Lubbock, Texas 79430.

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA



**FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY**

YOUR FIRST STEP TO FIRST QUALITY PROTECTION

CONTACT FIELD REPRESENTATIVES

Louisville Office

DONALD G. GREENO

**400 Sherburn Lane, Suite 104,
Louisville, Kentucky 40207**

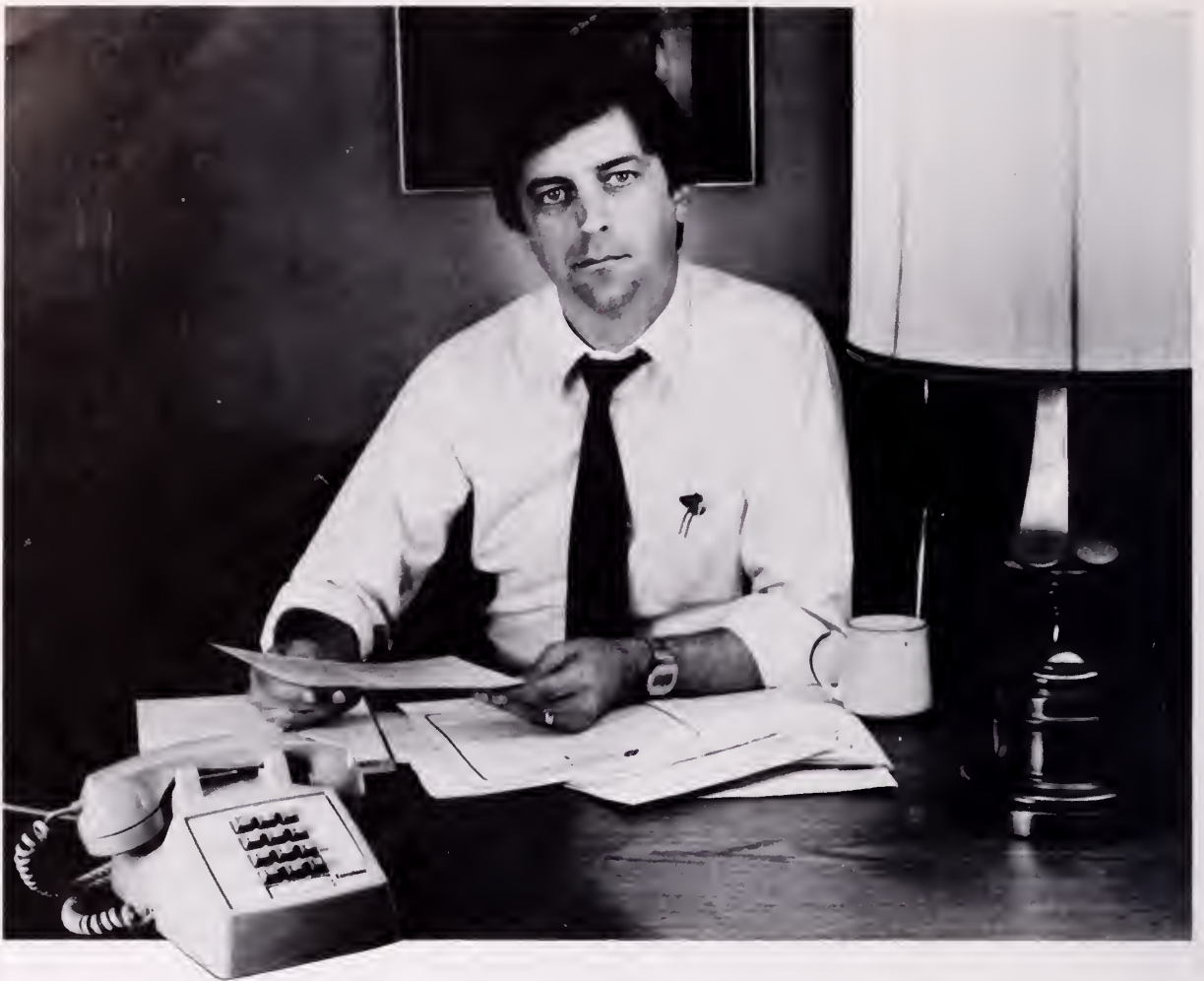
(502) 895-5501

Lexington Office

CHARLES E. FOREE

**Suite 103B, 152 East Reynolds Road
Lexington, Kentucky 40503**

(606) 272-9124



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

**Endorsed by the
Kentucky Medical Association**



AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

EDITORIAL

The Market

American medicine is being urged into the use of aggressive marketing procedures by a number of powerful forces. The older professional population may resist this because of inertia and revulsion but the fresher, energetic new members may take to aggressive marketing with enthusiasm. The Federal Government encourages marketing with the hope that competition, fair and American, will influence a substantial decline in money spent on medicine. The incline in physician numbers and service availability associated with an apparent decline in patients' requests for services may also influence the desirability for medicine to sell itself.

Already profit making hospitals have begun advertising in print and electronics. Already non-profit hospitals have followed their lead. Already health maintenance organizations have entered with paid publicity. Already the rapid increase in sophistication and persuasion of these advertisements is palpable to the consumer.

Already a prestigious New York public relations firm offers to write an article in the *Journal* "on the do's and don'ts of using public relations services to help build practices." An accompanying newspaper article describes an effective PR method: the company develops and ghost writes a book for the doctor, then engages him in book reviews and talk shows to promote the book. The enlarging effect on the practice is great and the cost of the service starts at only \$50,000 a year.

The Kentucky Medical Association has developed a succinct, intelligent and perceptive "Voluntary Guidelines for Physician Advertising" which has by now been distributed to the membership and to which we urge your most careful attention.

A. Evan Overstreet, M.D.

Kentucky
Medical Management &
Computer Operations

KMCO

A subsidiary of KMA Physicians Services, Inc.

For the physician's office

"Tomorrow's Technology is Here Today"

Created exclusively to deal with the specialized needs of the physician's office, KMCO is ready to answer your questions on all phases of practice management and computer technology. We know a more efficient practice is the key to more efficient patient care.

For Additional Information Call Us At:
Louisville Area 451-2095 or 1-800-292-1675
or mail this coupon

Send me further information on

- ☐ Computer Services
- ☐ Consultation
- ☐ Practice Management Workshops

Name _____

Address _____

City _____ State, Zip _____

Telephone _____

Mail to: KMCO
3532 Ephraim McDowell Dr.
Louisville, KY 40205

Anatomic Repair of Transposition of the Great Arteries

CONSTANTINE MAVROUDIS, M.D.

Recently, anatomic repair procedures have provided encouraging results in the treatment of patients with transposition of the great vessels. A successful case is reported in which the patient underwent a balloon septostomy to facilitate right and left atrial mixing and later, an arterial switch procedure to correct the congenital defect. Various considerations are also discussed with reports of related study findings.

Patients with transposition of the great arteries are severely cyanotic at birth. In these patients, the origin of the great arteries is congenitally "switched" resulting in the right ventricle giving rise to the aorta and the left ventricle giving rise to the pulmonary artery. Consequently, the pulmonary and systemic circulations are independent and parallel. Immediate survival is dependent on "mixing" of the pulmonary and systemic circulations, which can occur through a patent foramen ovale (atrial mixing), a ventricular septal defect (ventricular mixing) or a patent ductus arteriosus (mixing through the great vessels).

Early attempts at surgical palliation were aimed at enlarging the atrial septum to increase atrial mixing.¹ The high mortality rate of the operation influenced Rashkind² to introduce the balloon septostomy. This procedure allows the cardiologist, at the time of catheterization, to enlarge the atrial communication by ripping the atrial septum with an inflated balloon, which has been passed into the left atrium. Although still cyanotic, patients markedly improve. These patients are observed until definitive surgery can be performed when the baby is larger and clinically more stable.

There are basically three types of transposition

anomalies: 1) transposition with intact ventricular septum, 2) transposition with ventricular septal defect, and 3) transposition with ventricular septal defect and pulmonary stenosis. Transposition with intact ventricular septum has been treated by inflow correction utilizing the Mustard³ and Senning⁴ methods. These procedures redirect flow at the atrial level to physiologically "correct" the defect. However, the right ventricle still gives rise to the aorta and the left ventricle to the pulmonary artery. Although the short-term and intermediate results seem promising, there is mounting concern about the long-term results due to the relatively high complication rate, which includes obstruction of the pulmonary or systemic venous return, serious arrhythmias and tricuspid regurgitation.⁵ Technical modifications have lowered the incidence of the first two complications, but the basic problem of the right ventricle and tricuspid valve serving the systemic circulation cannot be altered.

Anatomically, the right ventricle and the tricuspid valve are quite different than the left ventricle and the mitral valve. The concern that the right side may not sustain systemic pressures over the long-term is based on studies showing right ventricular dysfunction and tricuspid regurgitation in patients with pulmonary hypertension. Moreover, hemodynamic studies have shown right ventricular dysfunction and tricuspid regurgitation, even when not clinically suspected, after the inflow correction procedure in patients with transposition of the great arteries. Other studies^{6,7} have shown abnormalities of the mitral valve due to ventricular septal displacement as a result of increased right ventricular pressure. Whether these problems progress or not will be dependent on the course of these patients as they get older. Because of these theoretical, as well as clin-

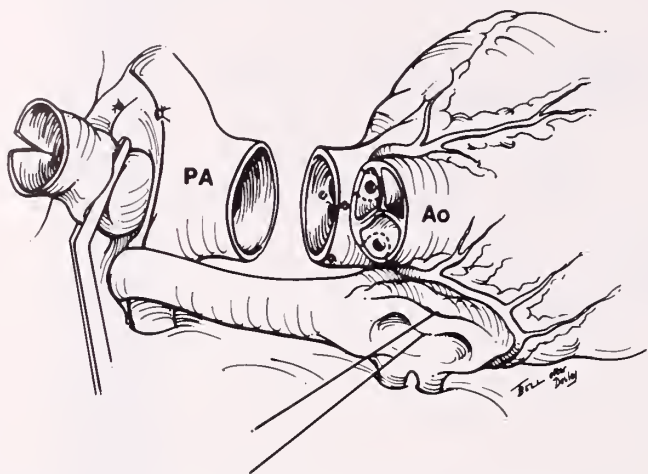


Fig. 1: The aorta and the pulmonary artery have been divided just above the respective valve commissures after careful dissection of the pulmonary artery. The coronary artery ostia (dotted lines) are prepared to be transferred to the noted areas of the pulmonary artery (asterisks).

ical and hemodynamic considerations, an alternative treatment for transposition has been introduced.

In 1975, Jatene⁸ first performed the arterial switch procedure that includes division, switch, and reanastomosis of the great vessels and reimplantation of the coronary arteries to the newly formed aorta. Others⁹⁻¹⁶ have successfully refined this technique with encouraging results.

Case Report

At initial catheterization, a two-day-old male was noted to have transposition of the great vessels, ventricular septal defect and atrial septal defect. A balloon septostomy was performed that increased right and left heart mixing at the atrial level, in addition to the mixing occurring at the ventricular level through the defect. The patient tolerated the procedure well and was maintained on lanoxin for compensated heart failure.

At five months of age, the patient had a catheterization that confirmed the earlier anatomy and showed equal pressures in the right and left ventricles. The coronary anatomy appeared to be normal. The patient then underwent the arterial switch procedure with reimplantation of the coronary arteries, closure of the ventricular septal defect and closure of the atrial septal defect. Postoperatively, he did well and was discharged from the hospital 12 days later. At three months follow-up, a chest roentgenograph showed a normal size heart, and physical examination revealed a grade 1/6 systolic murmur.

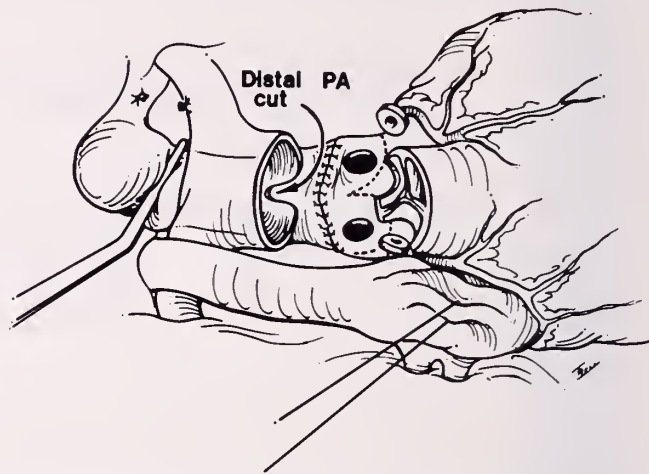


Fig. 2: The distal ascending aorta is translocated behind the distal pulmonary artery and is sutured to the proximal pulmonary artery. The coronary arteries connected to a small patch of aorta are prepared for transfer to the newly created aorta, which is connected to the left ventricle.

Discussion

Anatomic correction of transposition of the great arteries depends, to a large extent, on the favorable position of the coronary arteries for transfer and the ability of the left ventricle to sustain the systemic circulation immediately after surgery. Yacoub and associates¹³ have shown by careful anatomic studies that virtually all patients with transposition can undergo coronary artery transfer. Other considerations are those of left ventricular development and optimal age of repair. The left ventricle must be "ready" for the systemic circulation at the time of repair. This necessary preparation is not a problem in patients who have transposition with additional lesions, sustaining high left ventricular pressure, such as ventricular septal defect, patent ductus arteriosus or subpulmonic stenosis. However, patients who have transposition with intact ventricular septum, which constitute the majority, undergo rapid diminution of left ventricular pressure and mass due to the normal drop in pulmonary vascular resistance after the first week of life. Yacoub⁵ found that anatomic repair in three such infants, who had a fall in left ventricular pressure, resulted in death due to pulmonary edema and left ventricular failure. Theoretically then, if an anatomic repair is to be considered in these patients, it must be performed in the first week of life. Ebert¹⁷ performed anatomic repair within the first week of life in seven patients with transposition and intact ventricular septum. Three patients survived, while four died of left ventricular failure, aortic valvular insufficiency

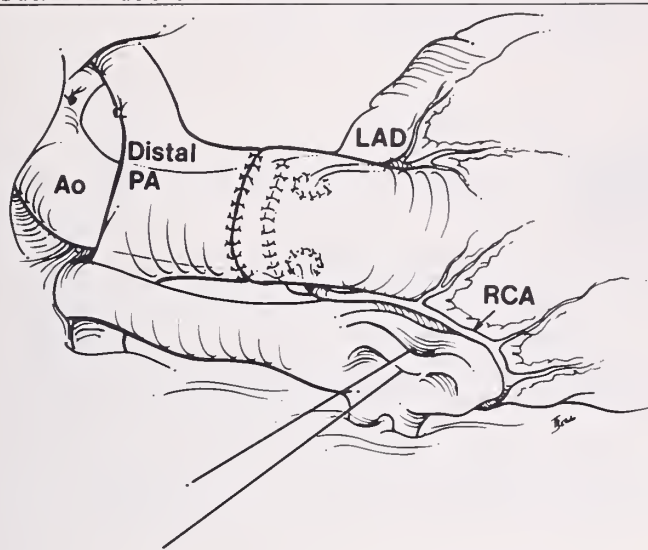


Fig. 3: The distal pulmonary artery has been sutured to the proximal aorta, which has become the new pulmonary artery and is connected to the right ventricle. The previous aortic reconstruction is present immediately posterior to the pulmonary artery and is connected to the left ventricle.

and excessive bleeding. Within the first week of life, Yacoub¹⁵ performed pulmonary artery banding, which acts to sustain high left ventricular pressure. He followed this with reoperation and anatomic repair when the child was older.

The repair used in our patient is based on the modified repair of LeCompte,¹⁰ as established by Pacifico and his associates¹¹ (Figs. 1-3). Our patient reached an optimal age (five months) and had systemic pressures in the left ventricle due to a large ventricular septal defect. This allowed the left ventricle to easily take over the work of the systemic circulation.

The available clinical data suggest that the best candidates for the arterial switch operation are those infants between three to eight months of age with transposition and large ventricular septal defects. For patients with transposition and intact ventricular septum, Yacoub¹⁵ advocates pulmonary artery banding in infancy followed by arterial switch repair at three to five months of age. The pulmonary artery band will maintain systemic pressures in the left ventricle, which prepares it for the eventual switch operation. Whether this approach will be embraced as a replacement for the safer Mustard³ or Senning⁴ operations remains to be seen. Clearly, the left ventricle is anatomically and functionally better suited to serve the systemic circulation than is the right ventricle. Evaluation of the forthcoming long-term results should allow us to make better decisions and recommendations in the future.

- References** 1. Blalock A, Hanlon CR: The surgical treatment of complete transposition of the aorta and the pulmonary artery. *Surg Gynecol Obstet* 90:1-15, 1950. 2. Rashkind WJ, Miller WW: Creation of an atrial septal defect without thoracotomy: A palliative approach to complete transposition of the great arteries. *JAMA* 196(11):173-174, 1966. 3. Mustard WT: Successful two-stage correction of transposition of the great vessels. *Surgery* 55:469-472, 1964. 4. Senning A: Surgical correction of transposition of the great vessels. *Surgery* 45:966-980, 1959. 5. Yacoub MH: The case for anatomic correction of transposition of the great arteries. *J Thorac Cardiovasc Surg* 78:3-6, 1979. 6. Hagler DJ, Tajik AJ, Ritter DG: Fluttering of atrioventricular valves in patients with d-transposition of the great arteries after Mustard operation. *Mayo Clinic Proc* 50:69-75, 1975. 7. Park SC, Neches WC, Zuberhuhler JR, Mathews RA, Lenox CC, Fricker F: Echocardiographic and hemodynamic correlation in transposition of the great arteries. *Circulation* 57:291-298, 1978. 8. Jatene AD, Fontes VF, Paulista PP, Souza LCB, Neger F, Galantier M, Sousa JEMR: Anatomic correction of transposition of the great vessels. *J Thorac Cardiovasc Surg* 72:364-370, 1976. 9. Jatene AD, Fontes VF, Souza LCB, Paulista PP, Neto CA, Sousa JEMR: Anatomic correction of transposition of the great arteries. *J Thorac Cardiovasc Surg* 83:20-26, 1982. 10. LeCompte Y, Zannini L, Hazan E, Jarreau MM, Bex JP, Tu TV, Neveux JY: Anatomic correction of transposition of the great arteries. A new technique without use of prosthetic conduit. *J Thorac Cardiovasc Surg* 82:629-631, 1981. 11. Pacifico AD, Stewart RW, Bageron LM: Repair of transposition of the great arteries with ventricular septal defect by an arterial switch operation. *Circulation* 68(suppl 11):49-55, 1983. 12. Ross D, Rickards A, Somerville J: Transposition of the great arteries: logical anatomical arterial correction. *Br Med J* 1:1109-1111, 1976. 13. Yacoub MH, Radley-Smith R: Anatomy of the coronary arteries in transposition of the great arteries and methods for their transfer in anatomical correction. *Thorax* 33:418-424, 1978. 14. Yacoub MH, Radley-Smith R, and Hilton C: Anatomical correction of complete transposition of the great arteries and ventricular septal defect in infancy. *Br Med J* 1:1112-1114, 1976. 15. Yacoub MH, Radley-Smith R, MacLaurin R: Two-stage operation for anatomical correction of transposition of the great arteries with intact interventricular septum. *Lancet* 1:1275-1278, 1977. 16. Yacoub MH, Bernhard A, Lange P, Radley-Smith R, Keck E, Stephan E, Heintzen P: Clinical and hemodynamic results of the two-stage anatomic correction of simple transposition of the great arteries. *Circulation* 62(suppl 11):190-196, 1980. 17. Ebert P: Personal communication, March, 1984.

From the Division of the Thoracic and Cardiovascular Surgery, Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky. Reprint requests to Constantine Mavroudis, M.D., Department of Surgery, Ambulatory Care Building, University of Louisville School of Medicine, Louisville, KY 40292.

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

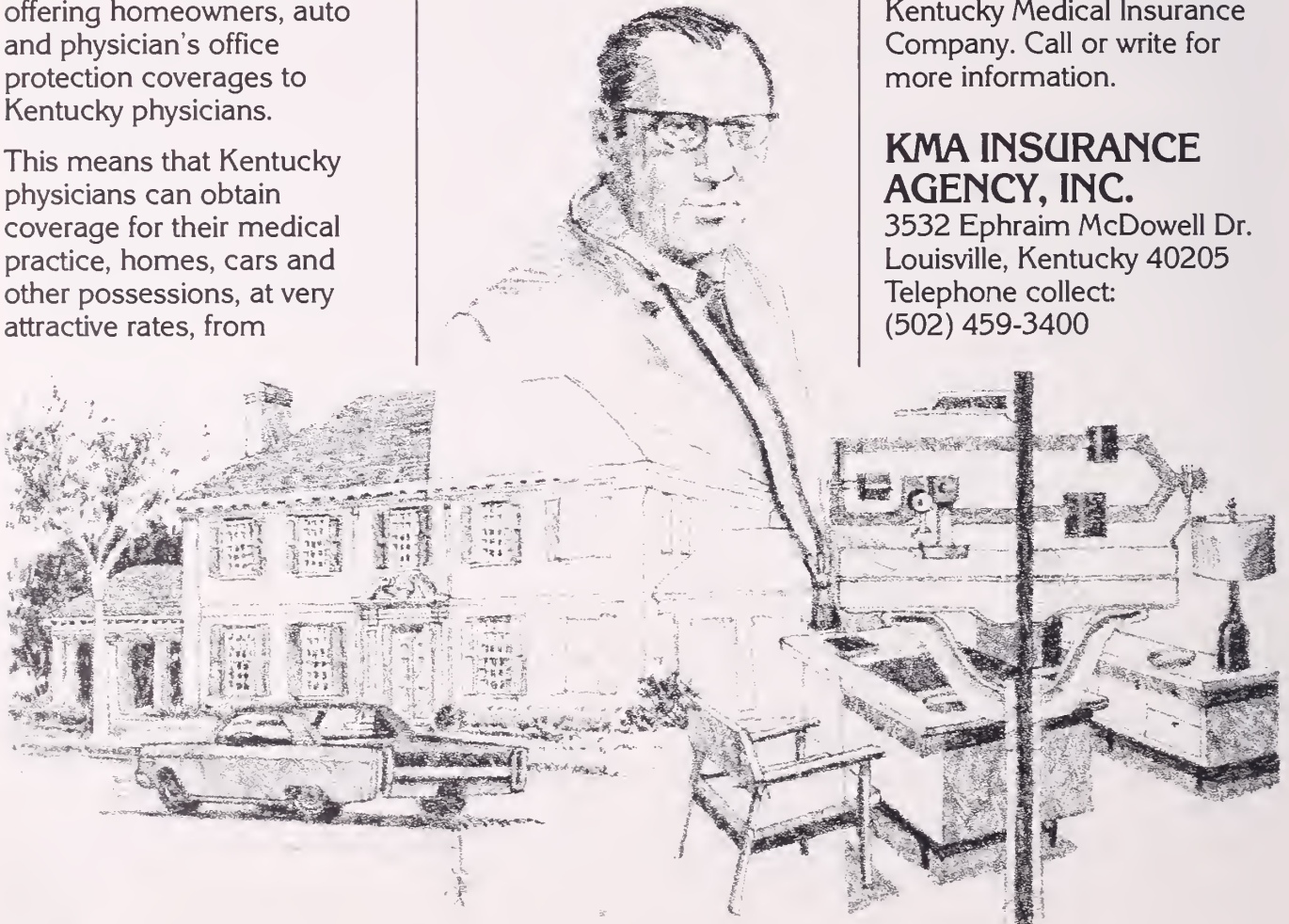
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



Kentucky's Doctors Elkin Contributions to Growth of Emory's Medical School

DAVID W. KINNAIRD, M.D., LOUISVILLE

Recent news of the funding of a \$400,000 oncology fellowship at Emory University's Winship Cancer Clinic by the W.S. Elkin Foundation (Atlanta) recalled the epochal role of two close kin doctors in the evolution of one of the South's major medical institutions.

One hundred years ago (1882) Atlanta was in the midst of her struggle to survive the agony of the Reconstruction Era with scant attraction for promising young physicians. Whether by prescience or luck, William Simpson Elkin, native of Lancaster, Kentucky and a recent graduate of Centre College (Ky) and the University of Pennsylvania Medical School chose this city for an unheralded beginning practice of medicine and surgery. For the next half century, he was instrumental in shaping the course of medical education in the Mid-South. No doubt, his heritage as a scion of an established rural central Kentucky family coupled with an inborn faculty for leadership provided the ingredients for his significant accomplishments.

Though his adopted city had long been recognized as the spawning ground for many marriageable and lovely "Southern Belle's," the young doctor returned to his hometown Lancaster, Kentucky to marry Nell Duncan, a most gracious lady who enriched his life. As a widower many years later, he again married a Kentuckian Nell Warren, a faithful and dedicated spouse throughout his latter years.

Early recognition of his medical skills by the Atlanta medical community led to his appointment as an Instructor in Anatomy at the Southern Medical College, one of Atlanta's two medical schools. Three years later he was appointed clinical professor of surgery. By this time, Doctor Elkin had demonstrated unusual leadership skills that were directly responsible for the merger

of the city's two struggling, mediocre, proprietary medical schools into the Atlanta Medical School. Continuing to serve the merged school, he was named Dean in 1913. During these busy years of private practice of surgery and school responsibility he found time to serve actively as "Surgeon to Grady Hospital" in the formative years of that venerable institution. His expanding private practice was largely responsible for the organization of a private hospital, the Elkin-Cooper Sanatorium, which flourished for many years and later disbanded with the advent of the broader based community non-profit hospitals.

It was rather singular that Elkin recognized the need for consolidation and upgrading of Atlanta's medical schools at or before his fellow Kentuckian Abraham Flexner's Carnegie Foundation Report exposing the terrible plight of most of America's medical schools in 1910.¹ These two educators understood the crying need for reputable universities to develop and operate medical schools as opposed to the common practice of proprietary ownership and control of medical schools. It was not surprising that W.S. Elkin, supported with enthusiasm by Bishop W.A. Candler, president of Emory University and abetted by the generosity of Asa Candler, Atlanta philanthropist, consummated the merger of Atlanta Medical School with Emory in 1915. He was the overwhelming choice for the new School's deanship continuing in that position until his retirement in 1925 as dean emeritus with an honorary LL.D. degree. These years of deanship were noteworthy for the erection and evolution of Wesley Memorial Hospital as the future Emory University Hospital. Until his death in 1944 he remained active in the affairs of the hospital and university.

SPECIAL ARTICLE

Community organizations and institutions were also the beneficiaries of his varied interests and talents culminating in lay leadership in the Presbyterian Church and directorship of one of Atlanta's leading banks. Doctor Elkin was one of the founders of the Atlanta Medical Society now known as the Fulton County Medical Society. As evidence of high esteem by his medical peers, he served two terms as president of that organization. Social prominence was manifest by his selection as president of the prestigious Capital City Club and membership in the Piedmont Driving Club. On April 17, 1932, the *Atlanta Journal* devoted a full column editorial to Elkin proclaiming "—his skill as a surgeon was equaled by his kindness as a human spirit; while his influence as a teacher was great beyond measure."

Doctor Elkins' fondness for his native state never abated and on one or two occasions yearly, he was chauffeured to Lancaster to savor the Bluegrass atmosphere and to Louisville to indulge his love of thoroughbred racing at the Derby. Highlight of his home visit in 1929 was the acceptance of a honorary LL.D. from his alma mater, Centre College.

In 1916 another Elkin, Dan Collier, also of the Lancaster, Kentucky Elkin family and the nephew of W.S. Elkin enrolled at Emory's Medical School after an illustrious career at Yale. Posting a near perfect academic record he received his medical degree in 1920. His early ambition to become a surgeon was realized by the opportunity to train under the world renowned surgeon Harvey Cushing in New Haven, Connecticut. Three years later he returned to Atlanta, associating with his uncle W.S. Elkin in the private practice of surgery.

Though there were many parallels in the career of the Doctors Elkin the selection of spouses was a notable exception. Whereas the senior Elkin returned to Kentucky for marriage Dan surrendered to the charms of and married an "Atlanta Belle," Helen McCarty. As predicted she was well suited for a mate of a soon to be famous surgeon. Whether in Atlanta, traveling afar, or on the Kentucky farm Helen was a dedicated partner — gracious and dignified under all circumstances.

Young Elkin was soon enmeshed in teaching surgery and moved rapidly through the professorial ranks. Seven years later the chairmanship of Emory's Surgery Department was entrusted to him. Little time was lost by the new chief in instituting reforms which strengthened and embellished the surgical training program. In addition to needed curricula changes, he assembled a competent surgical staff as a basis for future department

success. During this period he exerted considerable influence in attracting monetary endowment support, leading to the establishment of the Joseph Brown Whitehead chair of Surgery at Emory. Soon thereafter, a beautiful Surgical Pavilion at Emory's Hospital was completed as a memorial to Conkey Pate Whitehead. Other philanthropies afforded needed opportunities for research projects as well as the resources necessary for prominent visiting surgeons' lectureships at Emory. Other accomplishments were the institution of Postgraduate Clinics and Seminars in Atlanta offering continued education for the regions' practicing surgeons.

Not content to rest on his didactic accomplishments, Dan Elkin applied his clinical skills to solving problems in blood vessel and heart surgery. These contributions merited his selection for the annual Matas Award for "outstanding contribution to Vascular Surgery in the U.S.A." With the outbreak of World War II he was appointed Chief of the Army's Vascular Surgery Center at Ashford General Hospital, which served as the referral medical facility for complex blood vessel injuries. The Legion of Merit Award and promotion to Brigadier General were just rewards for his significant war time endeavors.

Upon completion of his military responsibilities, he resumed his leadership at Emory's Surgery Department. Surprisingly, he found time and energies to give of himself to many medical organizations, including the American College of Surgeons, serving as its president in 1956. Especially meaningful to Doctor Elkin was his long and treasured membership in the Southern Surgical Association, which honored him by selection as president in 1946. These and many other organizational activities served as a forum for development of close personal relationships with the giants as well as the rank and file of American surgery.

Retirement in 1954 resulted in his easy reconversion to a Kentucky farmer and horseman in Lancaster. Still he continued to give time to educational institutions, serving as a member of the Board of Trustees of the University of Kentucky beginning in 1956. Ever warm, friendly and light hearted, he charmed old and new friends until his death in 1958. His wife Helen, son Dan, Jr., and his family continue to maintain the family tradition at 'Elkin Place' in Lancaster.

Few Kentuckians have been aware of the Elkins' accomplishments though their history has been well chronicled by Martin and Perdue.² Future medical biographies will continue to accord them recognition as two of the South's most illustrious surgeons and medical

SPECIAL ARTICLE

educators. For those of us who were fortunate enough to have known either Elkin, such accounts of their outstanding careers will not overshadow their unusual traits of graciousness, friendliness and attentiveness to many aspiring physicians and surgeons.

References 1. Flexner, A.: Medical Education in the United States and Canada. A Report to the Carnegie Foundation for the Advancement of Teaching. Washington, D.C.: Science & Health Publications, c 1960. 2. Martin, J.D. and G.D. Perdue: The History of Surgery at Emory University. Fulton, MO.: The Ovid Bell Press Inc., 1979.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee



SPORTS MEDICINE

1984 KMA ANNUAL MEETING

Sept. 17-20

**Hyatt Regency/Lexington
Convention Center
Lexington, KY**

Auxiliary

Dear Hearts and gentle people. My theme for 1984-1985 is harmony about which *I Could Write A Book*. Because harmony is so important to our federated organization, the medical auxiliary, my *Dream* is that AKMA's harmony, this year, will be *The Talk Of The Town* both nationally and in each of our component auxiliaries.

Liken, *If* you will, the federation to a concert orchestra, assembled for the purpose of playing one tremendous overture which is a composition of various melodies of a similar character or theme. The theme of our overture is the improvement of the quality of life and health care for all people. It remains ever constant. The melodies which comprise the overture are various health projects which diversify *Time After Time* in order to keep pace with *What The World Needs Now*.

The orchestra, or federation, is divided into three sections, just as every orchestra. One plays the melody, one the rhythm and one the harmony. The national auxiliary, determining from the *Sign Of The Times* which tunes will best present our theme, plays the melodies, providing program direction on the varied health projects. It also disseminates information on fund raising, legislation, membership, bylaws and parliamentary procedure—all necessary to keep the orchestra playing in the right key.

The second section of the orchestra is the rhythm section composed of 900 county auxiliaries. It is the rhythm which makes a melody. Without rhythm there would be no melody. Without the county auxiliaries, there would be no federation. Different rhythms are created by different rhythms. That is the exciting and stimulating part of our overture. How next will a county auxiliary present the melody? What will be its beat? Which rhythm will the members use to meet the needs of their communities?

That's All, the melody and the rhythm, which is necessary to *Play A Simple Melody* and the variations thereof, but there is a third component which will give the composition its accord and its congruity. That is harmony. Without it, any overture is empty, devoid of substance. So the 46 state auxiliaries have the monumental task of providing harmony as they coordinate the melodies of national and the rhythm of the counties into a full bodied, arousing, inspiring, project dispensing overture. I propose that AKMA's harmony this year be so *Sweet And Lovely* that there will be requests for *Encore* after *encore Til The End Of Time!*

There'll Be Some Changes Made in 1984-85. One is a new committee called "Widows." *From This Moment*



On, we want to be there, *Where Or When*, these people ask, "Who can I turn to?" We want them to have more than just *Memories* to see them *Through The Years*. . . . *We've Only Just Begun* to support the Ronald McDonald houses which will be a special committee this year. We may not be able to *Make Someone Happy*, but, surely we can ease the *Heartaches* of those who must remain away from *Home Sweet Home*. . . . our *Design for autumn*, or our *October song*, will be a McDowell House day. Hopefully, it will be *Sunny* and not a *Rainy Day*. . . . AMAERF will urge everyone to be a *Big Time Spender*. . . . health projects will *Say, Say, Say, "Give It Up."* Don't *Smoke, Smoke, Smoke, That Cigarette*. And, *Somewhere Down The Line, Step By Step*, we'll help make the *All Time High* of the "I Want a New Drug" syndrome fade into *Yesterday*. We shall also focus on prenatal and postnatal care with emphasis on *The Tender Years*. . . . and, doctors' day, well, *It's Gonna Be Special*, too.

Harmony! *Nobody Said It Was Easy*. But if the 1400 members of AKMA play their notes in tune, their major chords will contribute greatly to the *Sound Of Music* of our orchestra, or federated auxiliary. They will be so *Outstanding* they will be *Too Marvelous For Words*.

I charge all the sharp notes on my staff—the officers, committee chairmen and county presidents—to *Accentuate The Positive*, eliminate the negative and to impart a *Warm Feeling* for harmony *Everywhere You Go*.

I charge every member of AKMA to *Always Powder Your Face With Sunshine* and *Remember to Smile, Smile, Smile* as you support the notes of 1984-85. *Stand By Your Man*. On the county level, you enhance his image. On the state and national levels, you enhance all of medicine.

Adelyn Spalding
AKMA President

SORRY

We are *not* the officially sponsored disability insurer of the 1984 Summer Olympics. Maybe it's because the athletes are not supposed to be professionals.

We *do* specialize in disability income for professional groups in Kentucky had have been insuring physicians since 1939.



SPECTRUM EMERGENCY CARE, Inc.

EMERGENCY MEDICINE

Part-time and full-time positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (8-60 hour shifts). For details write or call:

Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214

1-800-848-2938 / 614-457-9761

All inquiries will be kept confidential

Are you concerned about what your drinking is doing to you? — to your practice? — to your family?

For Help Call

**COMMITTEE ON
IMPAIRED PHYSICIANS
502/459-9790**

Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

***WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

In Hypertension... When You Need to Conserve K⁺

Remember the Unique Red and White Capsule: Your Assurance of SK&F Quality

Serum K⁺ and BUN should be checked periodically (see Warnings and Precautions).



Potassium-Sparing

DYAZIDE®

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Over 17 Years of Confidence

a product of
SK&F CO.
Carolina, P.R. 00630

The unique
red and white
Dyazide® capsule:
Your assurance of
SK&F quality.



Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

Upjohn

ASSOCIATION

Laman A. Gray, Sr., M.D. Retires from McDowell House Board of Managers

Laman A. Gray, Sr., M.D., Louisville, has retired from the McDowell House Board of Managers. Doctor Gray, a member since 1947, has served as Chairman of the Board since 1965. The Board is responsible for the management and operation of the house with the assistance of full time staff. The KMA, which owns the house, contributes support, along with surgical and gynecological associations and interested individuals. Much of this support is the result of Doctor Gray's efforts.

Doctor Gray has given abundantly of his time and service to the house he loves. The fruition of his efforts can be seen by visiting the house, a beautiful tribute to Laman Gray and members of the Board. Credit for these accomplishments should also include Ms. Susan Nimocks and her staff.

Doctor Gray was born in Cave City, Arkansas on April 29, 1908. He received his A.B. degree from Arkansas College in 1928 and his M.D. degree from Johns Hopkins Medical School in 1932. Doctor Gray spent seven years at Johns Hopkins as a resident, assistant in pathology and as an instructor in pathology and gynecology.

In 1937, Doctor Gray moved to Louisville and became instructor and associate in obstetrics and gynecology at the University of Louisville School of Medicine. A short time later he became Clinical Professor of obstetrics and gynecology both at the University of Louisville School of Medicine and at the University of Kentucky College of Medicine at Lexington, Kentucky, when it opened. For many years he was Editor of Obstetrics and Gynecology for the American Lecture Series, published by Charles C. Thomas.

In the early months of World War II, Doctor Gray entered the military service and was assigned to the Walter Reed General Hospital, Washington, D.C., as Chief of Women's Surgery. During this tour of duty he was exposed to the field of general surgery and operated

for a short time with Daniel C. Elkin, a native of Lancaster, Kentucky, and for three and a half years with Doctor R. Arnold Griswold of Louisville. This experience in general surgery was unusual at the time for a gynecologic surgeon, and of course acquainted him with operative procedures involving the abdomen. He was retired from the Service in 1945 as a major in the United States Army Medical Corps.

Doctor Gray has been named a continuous member of all the national obstetrical and gynecological societies in the country and has held office in many of them, as well as belonging to and holding office in many surgical societies. He was president of the Kentucky Surgical Society at its 25th anniversary and is a past president of the Southern Surgical Association and still on the council. Doctor Gray is past president of the Kentucky Division of the American Cancer Society, serving on the board of the National Society. He was chairman of the Professional Education Committee during several of the years he served on the board of the Kentucky Division of the American Cancer Society. While chairman of that committee he was responsible for bringing a large group of national and international specialists in gynecology to Louisville for a symposium on cancer of the cervix, uterus and ovary. He later edited a book containing all the papers presented at the symposium. In 1981, Doctor Gray was presented the Distinguished Service Award by the Kentucky Medical Association.

A regional cancer center in Louisville had been a dream of Doctor Gray's for many years. This dream came true when he asked a group of prominent professional and business people to help him make this possible. The J. Graham Brown Foundation was a large contributor, and the J. Graham Brown Foundation building, which is part of the new medical center and hospital, is now open for treatment of cancer patients and for research in cancer. Doctor Gray maintains an

office in the building. No federal funds were used in the construction of the building nor are used in its present operation. This center for the treatment of and research in cancer would not have been possible had it not been for Doctor Laman A. Gray, Sr. in his continued interest in the cause, treatment, and research in cancer. Doctor Gray served on the first committee of the American College of Surgeons who wrote the first Bylaws and Guidelines for the diagnosis and treatment of cancer.

Doctor Gray is the author of some 200 published articles and has written eight textbooks. The third edi-

tion of his book *Vaginal Hysterectomy* has just been published by Charles C. Thomas. At present he is writing a book entitled *The Life and Times of Ephraim McDowell*.

Doctor Gray is an outstanding physician in his field of gynecology and cancer. He is considerate, compassionate, and understanding to all who seek his advice. He has loved his patients and they have loved him. No greater tribute can be given to any doctor than that he shows this loving kindness and care to his patients.

C. Melvin Bernhard, M.D.



KMA President, Charles C. Smith, Jr., M.D., (left) accepted the AMA Membership award from **John J. Coury, Jr., M.D., Chairman** of the AMA Board of Trustees, during the AMA Leadership Conference in February. The award was presented to Kentucky for exceeding its AMA membership over last year.

Members in the News

Marie Keeling, M.D., was recently appointed by the Kentucky Hemophilia Foundation Board of Directors to serve as Chairman of its Medical Advisory Committee. Doctor Keeling presently is Medical Director of the Blood Bank and Hematological Specialties at NKC Hospitals and is Associate Professor of Pathology at the University of Louisville.

The following KMA physicians will serve a two-year term on the Committee with Doctor Keeling:

John R. Brewer, M.D., Madisonville
William H. Carney, M.D., Elizabethtown
Manuel Grimaldi, M.D., Louisville
Robert A. Jacobs, M.D., Louisville
Clifford V. Jennings, M.D., Louisville
William H. Matthew, M.D., Grayson
Maynard Stetten, M.D., Louisville

The function of the Committee is to advise the Chapter lay leadership and treating physicians on the medical and scientific aspects of hemophilia, von Willebrand's disease and related bleeding disorders.

Robert G. Cox, Executive Vice President of the KMA, has been invited to serve on the Board of Directors of the Kentucky Chamber of Commerce. The Kentucky Chamber is the major organization for representation of businesses and professions in Kentucky. Mr. Cox will serve a three-year term.

Norman M. Cole, M.D., Louisville, has been re-elected secretary of the American Society for Aesthetic Plastic Surgery. Doctor Cole received his medical degree from Loma Linda Hospital in California and had residency in plastic surgery at Duke University.

John D. Miller, M.D. of Evans, Kentucky and **Manuel Grimaldi, M.D.**, of Louisville, have been elected Fellows of the American College of Physicians (ACP). Election to Fellowship in the national organization signifies a physician's high level of scholarship and achievement in internal medicine.

Robert N. McLeod, M.D., Somerset, was honored with an appreciation dinner by his community for his 30 years of service as a pediatrician and his efforts to improve high school athletic health care. Doctor McLeod was a team physician for Somerset High football teams for more than 20 years. The Kentucky General Assembly also acknowledged Doctor McLeod's contributions to medicine by adjourning the Senate, Feb. 10, in his honor.

The Professional Medical Office Computer System

- Fast and accurate patient information
- Increased Office productivity
- Better patient relations
- Increased collections
- Better financial control
- A proven company (since 1854)
- Improved cash flow
- Paperwork reduction
- Patient/guarantor information
- Appointment scheduling
- Patient accounting
- Insurance claims handling
- Financial reports
- Practice analysis reports
- Past due account handling
- Honeywell computer hardware



PULSE
SYSTEMS
DIVISION OF

Charles Leich and Co.

P.O. BOX 869
EVANSVILLE, INDIANA 47705

In Indiana call (800) 852-3964 Outside Indiana call (800) 457-3074

CHANGING ADDRESS?

**Please let us know at least
two months before chang-
ing your address.**

Send new address to:

Journal of the Kentucky

Medical Association

3532 Ephraim McDowell Drive

Louisville, Ky. 40205

Nominations Being Accepted for Three Annual KMA Awards

Nominations are being accepted for three awards which are presented each year at the KMA Annual Meeting to outstanding physicians and lay people.

Nominees for the Educational Achievement Award are chosen from members of the Commonwealth who have made a significant achievement in medical or medically related education in areas of research, clinical application of medical practice and/or patient education. Nominations must be received in the Headquarters Office by July 1. Recipients are chosen by the Continuing Medical Education Committee.

The Distinguished Service Award is presented each year to a physician in the state who has contributed to organized medicine or individual medical service, community health or civic betterment and medical research or distinguished voluntary military service. The nominee may qualify on any one or a combination of these points.

The Kentucky Medical Association Award is presented to an outstanding lay person in honor of his or her outstanding accomplishments in the field of public health and/or medical care. July 15 is the deadline for receiving nominations for the Distinguished Service Award and the Kentucky Medical Association Award. Recipients will be chosen by the Awards Committee.

Nominee material should include background and historical information about the nominee as well as justification for the nomination.



Adolescent Heart Murmurs in Sports Participation

John A. Lombardo, M.D.

The adolescent athlete who presents with a heart murmur constitutes a problem for the physician. The aim of this presentation will be to familiarize the participants with the identification and management of heart murmurs found in the young athletes. Screening techniques used during pre-participation evaluations will be discussed. The diagnostic testing used in the evaluation of these murmurs include treadmill stress testing, EKG, chest x-ray and echocardiogram. Safe participation in athletics for all individuals is the goal of the physician who deals with athletes. Guidelines for the management of heart murmurs are necessary in order to fill this goal.

**1984 KMA Annual Meeting
Sept. 17-20, Lexington, KY**

ANOTHER MEMBER SERVICE



KENTUCKY MEDICAL ASSOCIATION PHYSICIAN PLACEMENT SERVICE

The Association acts as a clearing house for communities searching for physicians seeking practice opportunities. Information is published regularly by the Placement Service Office.

CONTACT KMA PLACEMENT SERVICE (502) 459-9790



Preparing The Athlete For Competition

Donald L. Cooper, M.D.

In preparing athletes for competition it is important to first have a good medical history and a fairly complete physical evaluation of the athlete. Next it is important to include running in your program of preparation, along with good flexibility and strength. This all takes proper supervision and good coaching techniques that optimize the opportunities for the athlete to develop to their best.

In addition, self-discipline must be taught and it is hoped that consistency can also be developed.

Proper maintenance of all facilities and playing areas is a must and must not be overlooked.

Proper medical care and proper supervision of medical care from the trainer to the physician is important.

Teaching good eating and sleeping habits will increase the chances of better results in athletic participation.

Over practice and over use syndromes will be discussed and methods to avoid these pitfalls will be presented.

The proper hydration of all athletes is also very important and necessary for optimum performance.

The use of drugs and alcohol is to be discouraged and is an area filled with dangerous responses and should be avoided.

Athletics remains one of the greatest educational tools left and we should do everything in our power to support our athletic programs.

1984 KMA Annual Meeting
Sept. 17-20, Lexington, KY

Digest of Proceedings

KMA Board of Trustees

April 11-12, 1984

The KMA Board of Trustees met in regular session on Wednesday and Thursday, April 11 and 12, 1984. Donald C. Barton, M.D., Chairman, called for reports of the President; Secretary-Treasurer; President, Auxiliary to KMA; Kentucky State Board of Medical Licensure; Senior Delegate to AMA; KPRO President; and Commissioner for Health Services.

Additionally, status reports were given by representatives of KMA-owned or affiliated companies: KMA Physicians Services, Inc.; KMA Insurance Agency, Inc.; Kentucky Medical Management and Computer Operations; and KMA Physicians Financial Services, a Federal Credit Union.

The Board also heard reports from Lee C. Hess, M.D., KMA's representative to the AMA Health Policy Agenda; and Fred C. Compton, Vice President of Blue Cross and Blue Shield, regarding the BCBS PACE Program.

The Board members selected nominees for the Governor-appointed Kentucky State Board of Medical Licensure and Kentucky Cancer Commission. They also appointed Phyllis Yates, Hebron, to the KEMPAC Board; and Dorothy Rush, Louisville, to the McDowell House Board of Managers; in addition to submitting the name of Lee C. Hess, M.D., Florence, to the AMA for con-

sideration of appointment to its Ad Hoc Committee on Foreign Medical Graduates.

The KMA Secretary-Treasurer was directed to vote the shares of Class B Common Stock owned by KMA for nine directors of the Kentucky Medical Insurance Company at the KMIC Annual Stockholders meeting on April 12.

The Board adopted a Budget Summary proposed for the 1984-85 Association year, and endorsed voluntary advertising guidelines the Judicial Council had developed for distribution to the membership.

The KMA Board members also endorsed the American Physicians Life Pension Plan program; and authorized the KMA Insurance Agency, Inc. Board of Directors to finalize KMA endorsement of insurance products as changes seem necessary.

The Board spent considerable time reviewing the report of the KMA Ad Hoc Committee to Develop a Tentative Response to the Health Care Access Report and referred the report to the House of Delegates for consideration in September. A Resolution was adopted encouraging a voluntary freeze on physician fees.

The next meeting was set for August 8-9, 1984, in Louisville.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month two months preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

X-RAY EQUIPMENT FOR SALE. Picket Clinix-R X-ray Equipment and Picker Processor. One year old. Excellent condition. Please contact Dr. Alan H. Johnson, 1413 North Elm Street, Henderson, KY 42420

Kentucky-Board-Certified Family Practice Physician to provide primary care services, including obstetrics, in ambulatory and in-patient settings. Benefits include: Paid insurances, including malpractice; paid holidays, vacation, sick leave; retirement and deferred compensation plans. Contact Annette Castle, Lexington-Fayette County Health Department, 650 Newtown Pike, Lexington, KY 40508, or call 6060252-2371.

Practice opportunity for Board Certified or Board Eligible Family Practitioner to join young Board Certified Family Practitioner in South Central Kentucky on Lake Cumberland. Excellent back up and practice opportunity. Call Rick Miles, M.D., (502) 866-2440 or write Dowell Road, Russell Springs, Kentucky 42642.

FOR LEASE

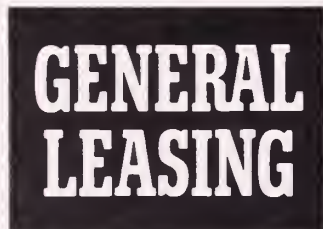
Hilton Head Vacation Villa Palmetto Dunes — New professionally decorated two bedroom/two bath villa/full kitchen and laundry. Directly on 15th tee of Fazio. Private pool, tennis, near ocean and Shelter Cove Harbor. Dennis R. Molony, M.D., 18 North Fort Thomas Avenue, Fort Thomas KY 41075 (606) 781-5020

**General Leasing
Company of Kentucky**

Professional Transportation Management

**We administer your
physician's lease plan.**

We lease all makes —
everywhere.



121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵ ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY
CONFIRMED BY EXPERIENCE

DALMANE[®]

flurazepam HCl/Roche

THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights²⁻⁴
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE[®]
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE[®] 
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]
flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES



STACKS

JOURNAL OF THE

Kentucky Medical

ASSOCIATION



THE

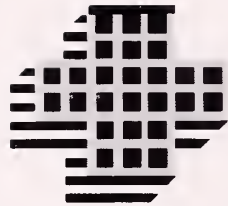
ICE MAN

S

COMETH

Page 341

Introducing



**Medical
MicroGraphics**

A Wholly Owned Subsidiary of the Jefferson County Medical Society

The “paperwork explosion” and skyrocketing records storage costs have proven the value of an alternative to in-house records storage for many forward thinking physicians.

Now Medical Society Services proudly announces a new and unique records management system called

MEDICAL MICROGRAPHICS

- A production facility to provide the highest quality microfilming of your inactive patient records, in the format you choose at a reasonable cost— or bulk storage of paper records if you prefer.
- A professionally staffed archive at the Medical Society to maintain your records to your standards of confidentiality and care.
- Retrieval, research and copying services available at the Medical Society.
- Gratis record storage for first year following retirement.
- Simplicity. One phone call arranges pick-up of documents at your office and a complete records management service to your specifications.
- Economy. No investment in expensive equipment and at the same time, convert hidden storage costs to a tax deductible business expense.
- Security. **Medical MicroGraphics is a division of Medical Society Services, a wholly owned subsidiary of the Jefferson County Medical Society.**

For more information call Cheri K. McGuire, Assistant Executive Director, at (502) 589-2001, 101 W. Chestnut St., Louisville, Ky 40202.

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 7

July 1984

SCIENTIFIC

- A Clinical Approach to the Choice of Antimicrobial Therapy
Case #23, Fever and Lymphadenopathy in a Farmer
Linda P. Peeno, M.D. and Martin J. Raff, M.D. 315

- Atrial Myxoma: Benign and Malignant
*Abdulla A. Attum, M.D., Lynn L. Ogden, M.D. and
Allen M. Lansing, M.D., Ph.D.* 319

- Surgical Management of Congenital Lung Cysts
A 16-Year Review
*Porter Mayo, M.D., Siby P. Saha, M.D., Graydon A. Long, M.D.
and Connie Powell* 327

- Pancreas Cancer (Grand Rounds)
Daniel E. Kenady, M.D. 337

EDITORIAL

- The Iceman Cometh 341

SPECIAL ARTICLE

- A Brief History of the University of Kentucky
Department of Surgery 343

ASSOCIATION

- Wally O. Montgomery, M.D., Nominated
for President-Elect 351
Physician Recruitment Fair 353
Annual Meeting Information 354, 355

REGULAR FEATURES

- President's Page 313
Letters 349

Cover illustration by Mark Chasteen

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific: Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign. (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40403 (606) 986-2323	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1985
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6143	1984

Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6472	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574	1986
4th.....	THOMAS R. TAYLOR, M.D., 914 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th.....	BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40342 (502) 839-6981....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3748	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1984
12th.....	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 324-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

JULY BUYERS' GUIDE FOR *JOURNAL OF KMA*

Baptist Hospitals, Inc	314
Classified.....	356
General Leasing Corporation	356
Insurance Corporation of America.....	347
Jefferson County Medical Society	310
KMA Insurance Agency, Inc.	342,350
KMCO.....	348
KMIC	331
A.P. Lee Agency, Inc	353

Eli Lilly & Company	340
Medical Protective Co.	339
Pfizer Laboratories.....	334,335
Roche Laboratories	332,333,334,357,358
Spectrum Emergency Care	356
St. Elizabeth Medical Center.....	356
The Upjohn Company.....	336
U.S. Army.....	352

PRESIDENT'S PAGE



In three months we will see the end of another Association year. It has been a good year for KMA. We have experienced continued growth in KMIC, KMA Insurance Agency and our Federal Credit Union. In addition, we have seen the birth of our latest venture, KMCO, our management and computer services company. I feel very confident that the ensuing years will prove these undertakings very rewarding and provide valuable services to KMA members.

In September, the House of Delegates will be asked to approve an action which the Board of Trustees unanimously endorsed this spring. That action calls for participation with the Health Care Access Committee in establishing and operating a "hot line"/referral system for indigent patients. A lot of effort and study was exerted by an ad hoc KMA Committee before this endeavor was even considered. The Board felt that accurate statistics do not exist as to the number of indigent in Kentucky. This project would help identify the problem, if indeed one exists. Also, if access problems do exist, it is the responsibility of our profession and members to do our part in treating these patients. I sincerely hope you agree with the Board position and endorse the concept in September. I believe this is a positive action which our Association should undertake.

Our committee structure has worked well again this year. Committee members have been extremely active and I want to thank them for their contributions. Not only are they asked to resolve problems that arise, but actively work to develop programs which improve the health care and quality of life of our citizens. They are to be complimented.

We had another extremely successful year with the Kentucky General Assembly. Our staff and Doctor Carl Cooper's Legislative Committee deserve many thanks. However, I am deeply concerned that many of our members are under the impression that everything will continue rolling along, "status quo." If we do not become more involved and develop our own programs and ideas, the medical profession is in for a rude awakening. The rumblings and warnings grow louder and louder in Washington and Frankfort. We were fortunate in defeating the mandatory Medicare assignment this year. However, Representative Rostenkowski, drafter of the mandatory Medicare assignment provision, served notice to the medical profession when he stated on the House floor, "Let those doctors and their lobbyists who oppose this amendment beware; to sidestep this minor restriction only builds the pressure for even harsher restrictions on doctors' charges as the day of reckoning on Medicare draws closer."

Despite all of these problems, less than 15% of our members belong to KEMPAC. Less than 7% are Sustaining Members. Isn't that ridiculous! Yet non-members are always the loudest complainers when government or other health professionals are successful in interfering with our present health care delivery system. If every KMA member belonged to AMA and KEMPAC, we would have fewer problems preserving the system. However, many of you are too unconcerned with our profession to get involved. If the shoe fits . . .

The District Trustees have worked long and hard this year and have represented their Districts well. I personally wish to thank them for their dedication and the honor of serving you as Chairman of the Board.

Donald C. Barton, M.D.
Chairman of KMA Board

There's never been a better match.

When you bring two hospitals together who complement each other as well as Baptist Hospital East and Highlands Baptist, everybody benefits. It's because the two hospitals were carefully developed to be a system.

They share resources and technology. And they share one of the finest medical staffs in the region. Together, the two hospitals offer a broader range of services than any other hospital in

the area. Their services complement rather than duplicate, so they can meet a much broader range of needs.

And because the hospitals operate as a system, health care costs are lower — for everybody. Highlands Baptist Hospital and Baptist Hospital East: what could be a better match?

We invite you to join the staff of our family oriented health care system.



Baptist
Hospital
East

Highlands
Baptist
Hospital

BAPTIST • HOSPITALS • INC.

A growing tradition

A Clinical Approach to the Choice of Antimicrobial Therapy

Case #23

Fever and Lymphadenopathy in a Farmer

LINDA P. PEENO, M.D. and MARTIN J. RAFF, M.D.

A 58-year-old previously healthy farmer was admitted to hospital three days after the sudden onset of fever, chills, myalgias and fatigue. The morning of admission he noted a dry cough and a tender right axillary mass. Two weeks prior to the onset of symptoms he sustained a minor injury to the right index finger and one week earlier had removed several dead rabbits from a field.

Physical examination reveals an acutely ill man with a temperature of 101.6°F. There is a small healing laceration on the right index finger, and the distal end is erythematous without induration or lymphangitis. A 4 × 3 cm firm tender mass is palpated in the right axilla and there are smaller cervical, inguinal and left axillary nodes. Faint rales are heard at the right lung base. Examination of the heart is unremarkable, but hepatosplenomegaly is present. There is no cutaneous eruption.

The WBC count is 12,900/mm³ with a normal differential. Urinalysis is normal. Gram stain of scanty mucoid sputum shows rare neutrophils without organisms.

Initial evaluation of this patient should include each of the following EXCEPT:

- A. Blood cultures
- B. Chest x-ray
- C. VDRL, PPD and serology for Epstein-Barr and cytomegaloviruses

D. Acute serology for tularemia

E. Immediate excisional biopsy of the right axillary node with appropriate stains and cultures for bacteria, AFB, and fungus, including sporotrichosis

Answer: E. Immediate excisional biopsy of right axillary node is **unnecessary**.

Blood cultures are needed in a patient with evidence of trauma and regional adenopathy. Infections of the thumb and index finger bypass the epitrochlear nodes, draining directly into axillary nodes, and septicemia can complicate acute suppurative lymphadenitis due to *Streptococcus pyogenes* or *Staphylococcus aureus*. Although the differential diagnosis should include pyogenic infection, for the latter one would expect the trauma to have been more recent, the wound to be more inflamed or infected, and the presence of firm fluctuant nodes with overlying warm, edematous and erythematous skin. Streptococcal and occasionally staphylococcal infections are often associated with red, tender linear streaks of lymphangitis, not observed in this patient.¹

Chest x-ray will determine the nature and extent of infiltrates, the presence of hilar adenopathy, and evidence of pleural changes. Bacterial pneumonias would be expected to have organisms present on sputum gram stain. Atypical pneumonias (*Mycoplasma*, *Legionnaires*, etc) can present with a negative gram stain. It would be unusual for bacterial or atypical pneumonias

to be associated with this extensive lymphadenopathy and splenomegaly unless the pneumonia was a complication of an underlying neoplastic disorder (eg Hodgkin's disease). Cytomegalovirus (CMV) infections in the immunocompromised host often present with fever and pneumonitis. The pulmonary infiltrates seen radiologically in CMV infection are more likely to be interstitial rather than intra-alveolar; however, patients have been described with discrete nodules or cavities. Enlargement of lymph nodes and spleen may occur in CMV infection, but these changes are usually not striking.² Pulmonary manifestations of infectious mononucleosis, although reported, are rare. Pleuropulmonary findings can be a clue to a diagnosis of tularemia, particularly in a patient with a history of potential exposure and the presence of lymphadenopathy, chills and fever.

Syphilis and tuberculosis are commonly associated with lymphadenopathy, and the evaluation should include a serologic test for syphilis and a tuberculin skin test. Regional lymphadenopathy usually accompanies primary syphilis; rarely, extragenital sites can include the fingers, and although a chancre would be expected at an inoculation site this may go unnoticed.³ Tuberculous lymphadenopathy commonly involves only intrathoracic or cervical nodes, but 5% of patients with cervical node involvement have accompanying axillary or generalized lymphadenopathy.^{4,5} Adenopathy in both tuberculosis and syphilis is painless. These diseases are chronic and they would be unlikely to have the abrupt onset exhibited in this patient, however both must be included in the differential diagnosis.

An elderly gentleman with generalized lymphadenopathy and splenomegaly may have infectious mononucleosis. Adults may present with an abrupt onset of fever and chills; pharyngitis occurs infrequently; the peripheral blood smear may evidence few if any atypical lymphocytes; and the Monospot test may be negative, despite high titers of antibody to the Epstein-Barr virus. Careful questioning will usually reveal a history of severe malaise and weakness antedating the seemingly abrupt onset of fever and chills.^{6,7}

Agglutination titer for tularemia is warranted in this patient who has had recent exposure to wild rabbits. *Francisella tularensis* is rarely seen on gram stain of sputum or exudate and cultures are often negative because of the failure of this organism to grow on ordinary media. A four-fold rise in the agglutination titer between acute and convalescent serum is diagnostic of acute infection and a single convalescent titer of 1:160 or greater is diagnostic of past or current infection.⁸

Francisella tularensis is a small gram-negative coccobacillus found in domestic and wild mammals (rabbits, squirrels, beavers, muskrats, etc), blood sucking arthropods (ticks or deerflies), birds, some fish and amphibians, and from water (streams and wells). Human disease occurs in North America, Asia and Europe. It has been reported in all 50 of the United States of America, with the largest numbers occurring in Arkansas, Illinois, Tennessee, Missouri, Texas and Virginia. Man can acquire tularemia by arthropod bites, animal bites, contact with tissues or body fluid of infected animals, ingestion of contaminated water or inadequately prepared meat, or by inhalation of infectious aerosols.^{9,10} Most patients will present with the abrupt onset of fever, chills, malaise and fatigue.

Five well-defined syndromes usually follow: 1) ulceroglandular (75-85%); 2) glandular (5-10%); 3) typhoidal (5-15%); 4) oculoglandular (1-2%); and 5) oropharyngeal (<1%). In the ulceroglandular form there is often, but not always, an associated skin lesion, representing the site of an animal or arthropod bite or an inoculation site, through contact with infected tissues or fluids. It may begin as a reddish papule, becoming undermined and extensive as it is allowed to progress, with regional adenopathy developing distal to the inoculation site. Some patients will also have generalized adenopathy, with palpable cervical and axillary nodes. Enlarged lymph nodes are firm, discrete and tender; associated lymphangitis is rare. Signs of toxemia can be severe in this form of tularemia, and pneumonia may occur with variable manifestations (see below). The glandular form may present with generalized lymphadenopathy and toxemia without obvious cutaneous lesions.¹¹

Exposure from respiratory, gastrointestinal and even intradermal contact can produce an illness characterized by higher fever, abdominal pain and severe toxicity. Its protean manifestations can be confused with many diseases, although characteristically it resembles enteric fever due to *Salmonella typhi* from which the descriptive term, typhoidal tularemia, is borrowed.¹² Inoculation into the eye can produce unilateral conjunctivitis characterized by photophobia, pain, congestion, itching, chemosis and purulent discharge and cervical or preauricular lymphadenopathy.¹³ Less commonly oropharyngeal tularemia occurs after ingestion of contaminated water or meat, producing acute exudative pharyngotonsillitis with prominent cervical lymphadenopathy.¹¹

ANTIMICROBIAL THERAPY—Peeno and Raff

Pleuropulmonary complications may occur in both the typhoidal and ulceroglandular forms of tularemia, emphasizing the importance of serial chest x-rays in suspected cases. Patchy ill-defined infiltrates in one or more lobes may progress to lobar pneumonia with evidence of consolidation and pleural effusions may occur even in the absence of proven parenchymal involvement.^{15,16,17}

Approximately 20% of reported cases have had an associated rash, usually appearing a few days after the onset of constitutional symptoms (fever, chills, malaise, etc). The types of lesions are variable and include macular, maculopapular, pustular or blotchy eruptions.¹⁸ Rarely tularemia can cause pericarditis, peritonitis, meningitis and osteomyelitis.

Immediate incisional biopsy of an enlarged lymph node is **not warranted**, especially if tularemia is included in your differential diagnosis. Enlarged nodes in the early stages of the illness are teeming with organisms and if incised may provoke bacteremia and toxemia. In addition, the surgeon is at significant risk of self-inoculation during the procedure.

The treatment of **choice** for suspected tularemia in this patient would be:

- A. Tetracycline 500 mg p.o. q 6 hrs × 10 days
- B. Chloramphenicol 1 gm IV q 6 hrs × 10 days
- C. Gentamycin 1.5 mg/kg IV q 8 hrs × 10 days
- D. Streptomycin 1 gm IM q.d. × 10 days
- E. Doxycycline 100 mg p.o. q.d. × 10 days

Answer: D. Streptomycin 1 gm IM q.d. × 10 days.

Tetracycline or chloramphenicol may be given and are effective in controlling the acute phase of tularemia, but they may not eradicate *F. tularensis* completely. Relapses of fever and other manifestations may occur seven to 14 days after initial therapy is completed, particularly if this has been given for less than 14 days. Resistance of these organisms to tetracycline or chloramphenicol does not usually occur, and recrudescence of illness can be easily treated with a second course of the antibiotic used initially. Doxycycline, a semisynthetic congener of tetracycline, is well absorbed and requires only once-a-day dosage. Although more convenient than tetracycline, it has no other advantages and is limited in utility for the same reasons as is tetracycline.¹⁹

In vitro studies of gentamicin have shown that it is bactericidal against *F. tularensis* at broth concentrations of 5 mc g/ml. Several patients with perplexing pneumonias which eventually resolved with gentamicin therapy were subsequently found to have had tulare-

mia.^{20,21} Streptomycin is bactericidal against sensitive strains of *F. tularensis* with an MBC < 2.0 mcg/ml. It produces a prompt clinical response with relapses which are less frequent than with tetracycline or chloramphenicol alone. Isolation of organisms resistant to streptomycin has occurred and the use of tetracycline in combination with streptomycin has been recommended by some. Several dosage regimens have been used and are considered to be equally effective. Streptomycin, 15-20 mg/kg, in divided doses given intramuscularly for seven to 10 days is effective. For more severe infections, larger doses, 20-30 mg/kg, may be given for two to three days, followed by 15-10 mg/kg a day for the remaining treatment period.^{22,23}

One of the following statements is **incorrect**:

- A. The mortality rate of untreated tularemia is 5-15%.
- B. Live attenuated vaccine will provide complete protection to laboratory workers and persons whose occupations place them at risk of exposure.
- C. Immunity following recovery from tularemia is cell-mediated rather than serum antibodies.
- D. Antibiotic prophylaxis after exposure can be provided with streptomycin.
- E. The tularemia skin test will be positive earlier and persist longer than the serum agglutination tests.

Answer B: The vaccine is unfortunately **not** completely protective.

Live attenuated tularemia will not provide complete protection to laboratory workers and persons whose occupations place them at risk of exposure.

A killed vaccine from inactivated *F. tularensis* organisms was developed by Foshay. Although it stimulated serum agglutinins and induced positive skin reactions to the bacterial antigens, it did not provide protection. The live attenuated vaccine now available is more effective, but also does not produce complete immunity. It does provide sufficient modification of the clinical illness to warrant recommendation of its usage in laboratory workers and persons with occupational exposure.²⁵

Recovery from well-treated tularemia is generally complete and is usually associated with permanent immunity, although a few reinfections have occurred in laboratory workers.²⁶ If the patient is untreated or inadequately treated, protection is incomplete and relapses may occur despite the presence of circulating antibodies. Recent studies suggest that cell-mediated immunity rather than serum antibodies is the important

protective factor.²⁷ The mortality of untreated tularemia abstracted from reviews during the preantibiotic era was 5-15%, but is now about 1%. Typhoidal tularemia is associated with a higher mortality, usually two to three times that of other forms.²⁴

Following a known or suspected exposure to tularemia, antibiotic prophylaxis can be provided with streptomycin, which will protect against symptomatic infection. Chloramphenicol and tetracycline given prophylactically will only prolong the incubation period without preventing the occurrence of tularemia.^{28,29}

A tularemia skin test using killed organisms becomes positive after the first week of clinical illness, earlier than the development of a positive serum agglutination titer, 1:80, which does not occur until the second week of infection. Although agglutination titers remain positive for several years, the skin test will remain positive (> 5mm induration) much longer. The response resembles the delayed hypersensitivity reaction seen with tuberculin. Unfortunately no skin test antigen is commercially available.³⁰

References

1. Swartz MN. Lymphadenitis and Lymphangitis. In Mandell GL, Douglas OR Jr, Bennett JE (eds). Principles and Practices of Infectious Diseases (Vol I) John Wiley and Sons, New York, 1979:326.
2. Jordan MC, Rousseau WE, Stewart JA, Noble GR, Chin TDY. Spontaneous cytomegalovirus mononucleosis: Clinical and laboratory observations in nine cases. *Ann Intern Med* 79:150-160, 1973.
3. Hartsock RJ, Halling LW, King FM. Luetic lymphadenitis: A clinical and histologic study of 20 cases. *Am J Clin Pathol* 53:304-314, 1970.
4. Turner DR, Wright DJM. Lymphadenopathy in early syphilis. *J Pathol* 110:305-308, 1972.
5. Kent DC. Tuberculous lymphadenitis: Not a localized process. *Am J Med Sci* 254:866-873, 1967.
6. Horowitz C, Henle W, Henle G, Arnold T, Lewis FB, Zanick D, Ward PCJ. Clinical and laboratory evaluation of elderly patients with heterophil-antibody positive infectious mononucleosis. *Am J Med* 61:333-338, 1976.
7. Carter JW, Edson RS, Kennedy CC. Infectious mononucleosis in the older patient. *Mayo Clin Proc* 53:146-150, 1978.
8. Munnich D, Lakatos M. Clinical, epidemiological and therapeutic experience with human tularemia. *Infect* 7:61-63, 1979.
9. Tularemia - Massachusetts. *Morbid Mortal Wkly Rep* 27:352, 1978.
10. Olsen PF. Tularemia, in Hubbert WT, McCulloch WF, Schnurrenberger PR (eds) *Diseases Transmitted From Animals to Man*. Charles C. Thomas, Springfield, IL, 1975:191.
11. Giddens WR, Wilson JW, Dienst FT, Hargrove MD. Tularemia: An analysis of 147 cases. *J La Med Soc* 109:93-98, 1957.
12. Pullen RL, Stuart BM. Tularemia: An analysis of 225 cases. *JAMA* 129:495-500, 1945.
13. Hanna C, Lyford JH. Tularemic infection of the eye. *Am Ophthalmol* 3:1321-1325, 1971.
14. Everett Ed, Templer JW. Oropharyngeal tularemia. *Arch Otolaryngol* 106:237-238, 1980.
15. Stuart BM, Pullen RL. Tularemia pneumonia: Review of American literature and report of 15 additional cases. *Am J Med Sci* 210:223-236, 1945.
16. Martine WJ, Marshall LW, Kaufmann AF, Hobbs JH, Levy ME. Tularemia pneumonia in Washington, D.C.: A report of three cases with possible common-source exposures. *JAMA* 242:2315-2317, 1979.
17. Rubin SA. Radiographic spectrum of pleuropulmonary

- tularemia. *Am J Roentgenol* 131:277-281, 1978.
18. Warring WB, Rubbin JS Jr. A tick-borne epidemic of tularemia. *N Engl J Med* 234:137-140, 1946.
19. Corwin WC, Stubbs SP. Further studies on tularemia in the Ozarks. Review of 44 cases during a three-year period. *JAMA* 149:343, 1952.
20. Alford RH, John JT, Bryant RE. Tularemia treated successfully with gentamicin. *Am Rev Respir Dis* 106:265-268, 1972.
21. Mason WL, Eigelsbach HT, Little SF, Bates JH. Treatment of tularemia, including pulmonary tularemia, with gentamicin. *Am Rev Respir Dis* 122:39-45, 1980.
22. Joyce JM. Francisella tularensis (Tularemia), in Mandell GL, Douglas GR Jr, Bennett JE (eds): Principles and Practices of Infectious Diseases (Vol II). John Wiley and Sons, New York, 1979:1988.
23. Berson RC, Harwell AB. Streptomycin in the treatment of tularemia. *Am J Med Sci* 215:243-249, 1948.
24. Foshay L. Tularemia: A summary of certain aspects of the disease including methods for early diagnosis and results of serum treatment in 600 patients. *Medicine* 19:1-83, 1940.
25. Burke DS. Immunization against tularemia. Analysis of the effectiveness of live Francisella tularensis vaccine in the prevention of laboratory-acquired tularemia. *J Infect Dis* 135:55-60, 1977.
26. Overholt EL, Tigertt WD, Kadull PJ, Ward MK, Charles ND, Rene RM, Salzman TE, Stephens M. An analysis of 42 cases of laboratory-acquired tularemia: Treatment with board spectrum antibiotic. *Am J Med* 30:785-806, 1961.
27. Kostiala AAI, McGregor DD, Logie PS. Tularemia in the rat. I. The cellular basis of host resistance to infection. *Immunology* 28:855-869, 1975.
28. McCrumb FR Jr, Snyder MJ, Woodward TE. Studies on human infection with pasteurella tularensis: Comparison of streptomycin and chloramphenicol in the prophylaxis of clinical disease. *Trans Assoc Am Physicians* 70:74-80, 1957.
29. Sawyer WD, Dangerfield HG, Hogge AL, Crozier D. Antibiotic prophylaxis and therapy of airborne tularemia. *Bact Rev* 30:542-550, 1966.
30. Buchanan TM, Brooks GF, Brachman PS. The tularemia skin test. 325 skin tests in 210 persons: Serology correlation and review of the literature. *Ann Intern Med* 74:336-343, 1971.

From the Section of Infectious Diseases, Department of Medicine, University of Louisville School of Medicine, Louisville, Kentucky 40292.

Atrial Myxoma: Benign and Malignant

ABDULLA A. ATTUM, M.D., LYNN L. OGDEN, M.D. and ALLAN M. LANSING, M.D., PH.D.

Sixteen atrial myxomas were seen in 15 patients between 1968 and 1983. Fourteen of these were surgically excised. The only operative death occurred in a patient who was misdiagnosed as having mitral stenosis and underwent an unsuccessful emergency closed mitral commissurotomy. A case of recurrent malignant myxoma with rapid metastasis and subsequent late death is described in detail. Malignancy of this primary tumor is extremely rare. Complete follow-up data was obtained on all surviving patients. All report resumption of normal physical activity except for one patient who suffers from chronic obstructive pulmonary disease. Accurate diagnosis is usually by M-mode or two-dimensional echocardiography and cardiac catheterization. Presenting symptoms include myocardial decompensation, atypical angina, peripheral emboli, subacute bacterial endocarditis, and constitutional complaints. Physical examination may yield signs of atrio-ventricular valve stenosis or regurgitation. Examination of all cardiac chambers for concomitant tumors, excision of a portion of the atrial septum, and long-term postoperative follow-up are mandatory. Care should be taken during the operative procedure to prevent embolization of tumor fragments. Recurrence of the myxoma may result from malignancy, multicentricity of the lesion, or inadequate initial resection.

Myxomas are the most common primary tumors of the heart.^{1,2} These lesions are unmistakably tumors and not atrial thrombi.³ They occur in all cardiac chambers but are far more common in the left atrium, where they are found in 75% of all cases.^{1,2,4-7} Biatial myxomas are rare.^{4,7,8} Cardiac myxomas are found in patients of any age, even in children as young as two-years-old, but are most often discovered in patients between 30 and 60-years-old.^{2,5,9-11} They are found more frequently in females than in males and have been noted to have a familial occurrence.^{5,6,11-13} Myxomas may re-

cur, especially in cases of malignancy, possible multicentricity, or inadequate resection.^{4,7,11}

Accuracy in diagnosing atrial myxomas has improved over the past decade. The majority of patients present with symptoms related to the mitral or tricuspid valves, but constitutional symptoms are a frequent complaint.^{4,14} A high index of suspicion and two-dimensional echocardiography are the most valuable tools in making the diagnosis.^{3,4,6,15} Cardiac catheterization is usually done to confirm the diagnosis, determine the degree of pulmonary hypertension, and examine for concomitant cardiac disease.¹⁵

Surgical excision is the treatment of choice for these tumors; a mortality risk of 8% has been observed in patients awaiting treatment.^{5,11} There should be no contradiction to surgery. Removal of atrial myxoma during pregnancy has been reported.¹²

We report on 16 cases of atrial myxoma seen by us in a 15-year period. Each patient was followed throughout the entire clinical course to evaluate the cardiovascular effect of the presence of or later excision of this lesion.

Materials and Methods

Sixteen atrial myxomas were seen in 15 patients between 1968 and 1983. (Table 1) Fourteen of these were removed in open heart procedures using total cardiopulmonary bypass. In one patient who was very ill and refused surgery, the diagnosis was made at autopsy. One patient was misdiagnosed as having severe mitral stenosis and died during an emergency closed mitral commissurotomy.

Fourteen of the lesions were situated in the left atrium and two in the right atrium, but none involved both atria. Eight tumors had a sessile configuration and six were peduncular. Recurrence was seen in one patient, caused by malignancy. One patient required a simultaneous mitral valve replacement for rheumatic heart disease and one required a pacemaker postoperatively.

Our study group comprised 13 females and two males ranging in age from 20 years to 77 years. Data was



Fig 1: Predominant myxoid pattern in specimen from primary tumor. A small vessel with fibrin in the lumen can be seen in upper left corner. The nuclei around this are hyperchromatic and slightly enlarged. Most of the area is sparsely cellular. (Intercellular matrix stained positively for Alcian blue and PAS. H&E, original photograph $\times 250$)

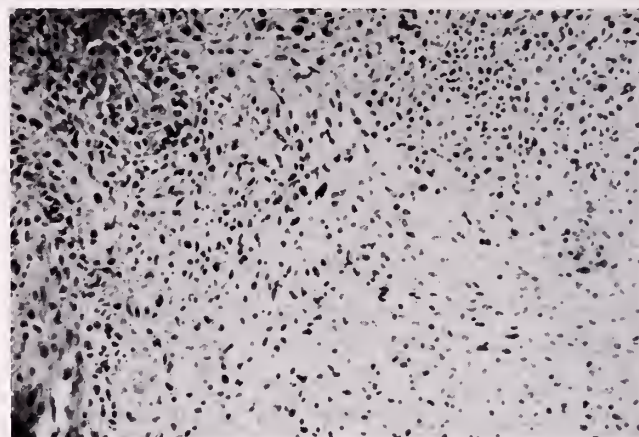


Fig 2: Predominant pattern of sarcoma in intra-atrial specimen of recurrent tumor. Areas with a more myxoid appearance were all clearly sarcomatous. Irregular areas of necrosis and many thrombosed vessel are present in areas not shown in this photograph. (Stroma stained with Alcian blue and PAS, H&E $\times 250$)

obtained by review of patient records and by interviewing all surviving patients in February, 1983.

Congestive heart failure was present in 11 (78.6%) of the 14 cases of left atrial myxoma. These patients, who were evaluated according to New York Heart Association functional guidelines as Class II-IV, complained of dyspnea on exertion, fatigue, peripheral edema, and pulmonary edema. Five patients (35.7%) with left atrial lesions presented evidence of emboli in the cerebrum, mesentery, and right popliteal arteries. Four patients (28.5%) had atypical chest pain consistent with angina. Two patients (14.3%) had positive blood cultures suggestive of subacute bacterial endocarditis; one infecting organism was identified as *escherichia coli* and the other as coagulase-negative staphylococcus aureus. Palpitations, hemoptysis, syncopal episodes, pulmonary emboli, ascites and hepatomegaly, and thrombophlebitis were each seen in one patient. One patient had intermittent fever, requiring multiple hospital admissions for treatment of what was thought to be viral pneumonia with negative blood cultures.

Of the 14 left atrial tumors, seven patients had a systolic murmur of mitral regurgitation. Two had an accentuated S_1 , a systolic murmur of mitral regurgitation, and an accentuated pulmonary component of S_2 . One patient had a clinical picture of mitral stenosis and regurgitation resulting from rheumatic mitral valve disease. Two patients had a loud S_1 and diastolic rumble of mitral stenosis. An opening snap was noted in two patients. Two patients had normal cardiac examinations without evidence of mitral stenosis or regurgitation.

One of the two patients with right atrial myxomas presented with atypical angina, dyspnea, intermittent fever with negative blood cultures, and hepatomegaly. The other complained of chest pain, palpitations, and fatigue. Her neck veins protruded prominently with a giant a-wave. These two patients had a systolic murmur of tricuspid regurgitation. In one, the murmur varied with changes in body position.

Duration of symptoms ranged from an acute onset in one very ill patient with subacute bacterial endocarditis to treatment four years after the onset of substernal pain. The mean duration of symptoms was 10.2 months.

Diagnosis of tumors in this series was made by echocardiography in nine patients and was the only preoperative study done in four of these patients. Cardiac catheterization was performed in 11 patients, six of whom had no other diagnostic study.

Of the nine patients with left atrial lesions studied by cardiac catheterization, four had severe pulmonary hypertension with pulmonary artery pressure (PAP) between 75 mm Hg and 105 mm Hg, mild mitral regurgitation, and predominant mitral stenosis. Three patients had mild pulmonary hypertension with PAP of 50 mm Hg. One patient had normal PAP without evidence of stenosis or regurgitation. The myxoma in this patient rose on a stalk from the superior portion of the left atrial wall without protruding into the mitral valve. One patient was misdiagnosed by cardiac catheterization as having mitral stenosis.

In the two patients with right atrial lesions, cardiac catheterization showed the PAP to be normal. However,

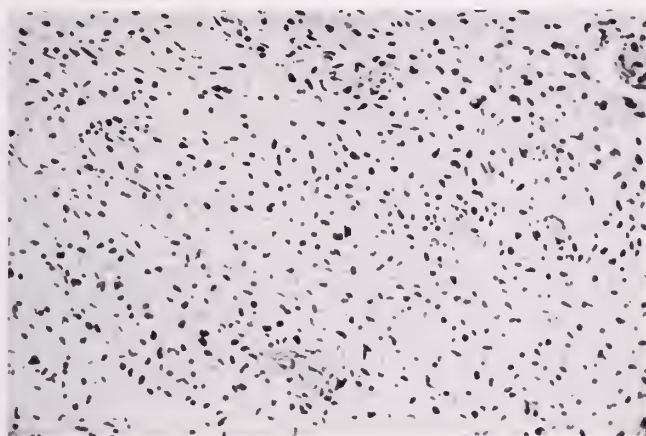


Fig 3: Needle biopsy of the cervical mass. The stroma is somewhat myxoid but the character of the tumor is clearly sarcomatous. (Stroma stained with Alcian blood and PAS, H&E $\times 250$)

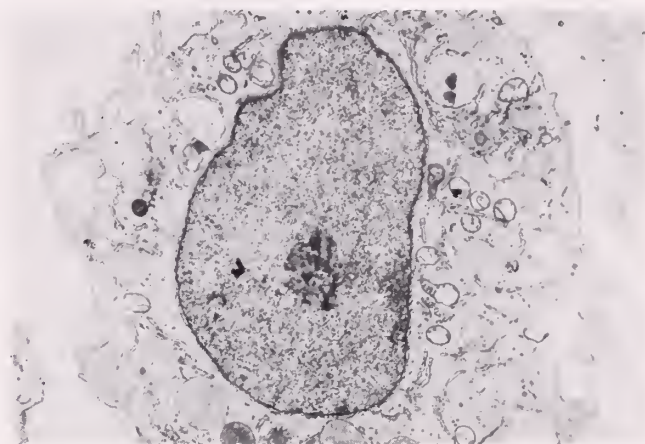


Fig 4: A typical cell from cervical mass as seen with electron microscope. Cells tended to be separated and showed no attachment to the surrounding cells. Intercellular spaces were wide and contained little recognizable material. Endoplasmic reticulum with few ribosomes are present. Pale homogenous inclusions were also seen which on higher magnification were not membrane-bound. (Embedded in epoxy resin, stained with saturated uranyl acetate and Reynold's lead citrate, $\times 4400$)

these patients had a mild gradient across the tricuspid valve with mild tricuspid regurgitation.

The technique of total cardiopulmonary bypass with cross-clamping of the aorta and cardioplegic arrest has been described elsewhere.^{7,16} In those patients who had left atrial lesions, the right atrium was explored by digital palpation prior to cannulation to rule out extension of the tumor through the septum. Venous cannulae were inserted into the superior vena cava and inferior vena cava. In one of the two patients with right atrial myxomas, vena caval cannulation was used, but in the other patient, cardiopulmonary bypass was established by inserting one cannula directly into the superior vena cava and another into the right femoral vein, using the right femoral artery for arterial perfusion. The base of this patient's tumor extended from one inch below the orifice of the superior vena cava to the orifice of the inferior vena cava, almost occluding the latter.

Removal of the tumor without an adjacent portion of the septum but with exploration of the other atrium was sufficient in three cases of pedunculated myxoma. Other patients with this type of lesion underwent removal of the tumor and a portion of the septum using a patch graft. No recurrence was seen in these patients. Of the seven patients with sessile myxomas, five were removed with a portion of the septum using a patch graft. No recurrence was seen. In two other patients, the myxomas were removed and the bases were cauterized. The tumor in one of these patients (case #9 and #12 in Table 1) originated from the posterior wall of the left atrium and superficially involved the posterior leaflet of the mitral valve. Cauterization of the base of this

benign tumor rather than excision of the atrial wall was used because of its juxtaposition to nearby vital structures.

The pathological specimen of this initial tumor was a multilobulated gray-tan mass measuring $4 \times 4 \times 3$ cm. The cut surface was rubbery with small areas of hemorrhage. Microscopically there were broad myxoid areas with extravasated blood and small masses of fibrin in the myxoid matrix. A small amount of mural thrombus was present on the surface. Scattered elongated cells with delicate processes were observed, some with moderately enlarged hyperchromatic nuclei. The initial impression was benign cardiac myxoma. Figure 1 shows a representative area of the tumor: the myxoid areas stained with Alcian blue and periodic acid schiff stain (PAS) and also with a pale blue in Mallory's trichrome stain, while the matrix was fibrillary as seen in a reticulum stain.

Recurrence of the tumor was discovered within six months, despite a normal echocardiogram taken six weeks before this diagnosis. Exploration of the left atrium at reoperation revealed several $1\frac{1}{2}$ -2 cm nodules at the base of the atrial appendage and also adjacent to the mitral valve where the tumor had been removed. In addition, a new mass, $5 \times 2 \times 2$ cm, was seen on the atrial septum in the region of the fossa ovalis. The entire atrial septum with a portion of the posterior left atrial wall was removed along with this mass, while the smaller nodules at the base of the atrial appendage and

TABLE I

	Duration of Symptoms	Symptoms	Location	Attachment (origin)	Procedure	Result
1. F 47	1 year	CVA, CHF, PVCs	Lt atrium	to septum on broad base	resection with part of septum and patch graft	did well
2. F 39	1 year	angina, SOB, CHF, syncope, intermittent fever	Rt atrium	originated between the coronary sinus & tricuspid valve on a stalk	only the myxoma removed	did well
3. F 62	8 months	SOB, CHF, pedal edema	Lt atrium		underwent surgery for closed mitral commissurotomy; diagnosis of myxoma made at autopsy	expired during surgery
4. F 20	4 years	cerebral emboli, heart murmur of MS and MR	Lt atrium	attached to septum on stalk	tumor removed; base cauterized, MVR done for rheumatic mitral valve disease	did well
5. M 54	14 months	SOB, heaviness in chest. Cerebral and peripheral emboli to right LE	Lt atrium	attached to superior portion of left atrial wall	tumor removed; base cauterized	did well
6. F 45	1 year	chest pain, palpitations, fatigue, weakness, non-productive cough	Rt atrium	broad base tumor extended from 1 inch below orifice of SVC to orifice of IVC	tumor removed with large portion of the septum, patch graft used	did well
7. F 45	8 months	CHF, peripheral edema, ascites, hemoptysis	Lt atrium	attached to septum on broad base	tumor removed, no patch graft	did well
8. F 67	4 years	substernal pain associated with diaphoresis	Lt atrium	broad base at junction of left inferior pulmonary vein and left atrium	tumor removed, base cauterized, no patch graft	did well
9. F 73 (same as #12)	4 months	chest pain (associated CAD), CHF, peripheral emboli. Treated for pulmonary emboli.	Lt atrium	attached to posterior wall and superficially involved posterior leaflet of mitral valve	tumor removed, base cauterized	tumor recurred on atrial septum (see #12)
10. F 61	1 month	CHF, cardiac catheterization 2 years previously did not show tumor	Lt atrium	attached to septum by broad base	tumor with large portion of septum removed, patch graft used	did well
11. F 42	14 days	CHF, edema, peripheral emboli, abdominal pain, nausea and vomiting of unknown etiology, thrombophlebitis, positive blood cultures, hematoma RLQ of abdomen	Lt atrium	attached to septum by broad base	tumor and portion of septum removed, patch graft used	did well
12. F 73 (same as #9)	3 weeks	CHF, myxoma removed from left atrium 6 months previously	Lt atrium	attached to atrial septum	tumor and large portion of atrium septum removed, patch graft used (malignant myxoma)	died of metastasis 7 weeks postop
13. F 77	acute onset	CVA (emboli), elevated temperature, positive blood cultures, WBC: 28,000, acrocyanosis of both hands	Lt atrium		diagnosis of atrial myxoma made at autopsy	refused surgery, expired 6 weeks after diagnosis made

ATRIAL MYXOMA—Attum, Ogden and Lansing

Table 1 cont.

14. F 42	2½ years	CHF, non-specific chest pain, multiple hospital admissions for treatment of chronic bronchitis	Lt atrium	attached to atrial septum	tumor and part of septum removed	developed nodal rhythm, bradycardia (HR:35), required permanent transvenous pacemaker
15. M 49	8 months	CHF, night sweats, intermittent fever (101°) diagnosed as viral pneumonia	Lt atrium	attached to atrial septum	tumor and part of septum removed	did well
16. F 60	2 months	paroxysmal nocturnal dyspnea, hospitalized with pulmonary edema	Lt atrium	attached to atrial septum	tumor and large portion of septum removed	did well

ABBREVIATIONS:			
CAD	coronary artery disease	MS	mitral stenosis
CHF	congestive heart failure	MVR	mitral valve replacement
CVA	cerebral vascular accident	PVC	premature ventricular contraction
HR	heart rate	RLQ	right lower quarter
LE	lower extremity	SOB	shortness of breath
MR	mitral regurgitation	WBC	white blood count

mitral valve were shaved off locally after the frozen sections indicated malignant tissue. Microscopically there were some very myxoid areas but at this time the tumor was clearly sarcomatous. Additional blocks of tissue from the first surgical specimen were re-examined and indeed the sarcomatous nature of the initial specimen was established. Many areas of necrosis were present. Figure 2 shows representative portions of the tumor from the second biopsy. Areas of the tumor on this biopsy also showed Alcian blue and PAS staining with a delicate reticulum fiber mesh work.

Five weeks later the patient was readmitted with cachexia and a large firm mass in the left supraclavicular area. Needle biopsy of this mass was performed; Figure 3 shows a representative area of the biopsy with the same sarcomatous pattern. The viable areas alternated with areas of necrosis. Portions of the specimen from the metastatic neck mass were prepared for electron microscopy. The cells contained dilated endoplasmic reticulum, swollen mitochondria, and abundant amounts of relatively empty interstitial space. No specialized cell junctions were identified. Pinocytic vesicles were seen in a few of the cells. Figure 4 is one of the representative cells seen. The electron-dense inclusions appeared to be lipid and did not have a distinct membrane surrounding them.

The patient required endotracheal intubation and later tracheostomy after respiratory distress resulted from tracheal compression by the neck mass. Treatment with doxorubicin hydrochloride had no effect and she expired seven weeks after the second surgical procedure.

Results

The only operative death occurred in a patient who was misdiagnosed as having mitral stenosis and underwent an unsuccessful emergency closed mitral commissurotomy. One patient died without surgical treatment.

Morbidity was limited to the development of nodal rhythm in one patient who required insertion of a permanent transvenous pacemaker.

Complete follow-up was achieved in all surviving patients. Three patients were followed for less than one year, two of whom have remained asymptomatic and have had no cardiac murmurs. The third patient died of metastasis by a malignant recurrent tumor.

Four patients were followed for 12 to 18 months, three of whom have remained totally asymptomatic. One patient continued to complain of dyspnea upon exertion resulting from chronic obstructive pulmonary disease, but has had no recurrence and no cardiac murmur.

Two patients were followed for three years and have been asymptomatic and very active. The remaining five patients have been followed for five, nine, 10, 11, and 14 years without recurrence of symptoms. All report being capable of vigorous activity.

Discussion

Clinically, none of the symptoms or signs found in patients with cardiac myxoma is diagnostic. Patients with myxomas usually present with one of the following:

1. Varying degrees of myocardial decompensation.¹¹

Patients usually are evaluated as cardiac class II-

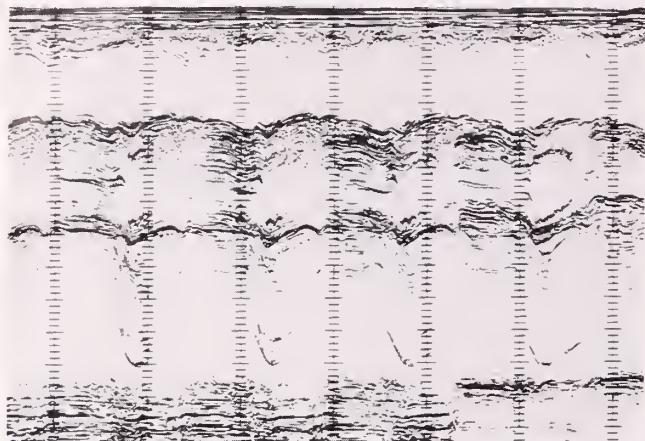


Fig 5: M-mode view of aortic root and left atrium demonstrating the presence of tumor echoes in the left atrium only during systole.

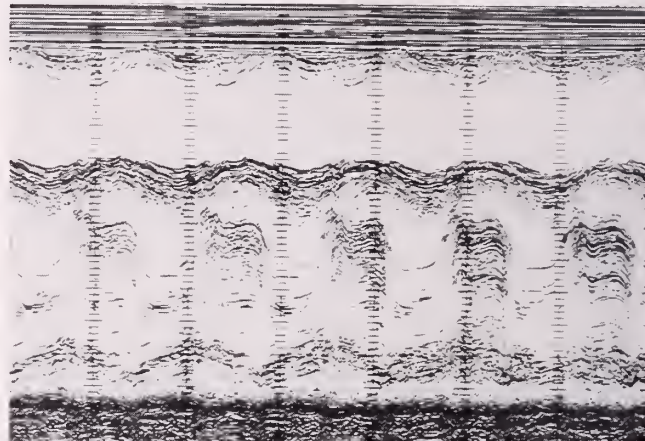


Fig 6: M-mode view of left ventricle demonstrating tumor echoes between the two leaflets of the mitral valve only during diastole. The presence of a small posterior pericardial effusion and a possible mitral valve prolapse is also shown.

IV.^{2,14} Lesions in the left atrium may cause fatigue, dyspnea, peripheral edema, and, at times, severe pulmonary edema, hepatomegaly, and ascites.^{1,8,14} Patients with right atrial myxoma may have similar symptoms and physical findings; in addition, they may have prominent neck veins with giant a-waves.^{11,15}

2. Non-specific chest pain or atypical angina. These patients can be difficult to evaluate, especially in the absence of cardiac murmur and the presence of normal myocardial function.
3. Peripheral emboli, including cerebral.^{1,2,5,14,15} Temporary or permanent cerebral damage can result. Emboli in the lower extremities most commonly involve small blood vessels, causing intermittent claudication; in the mesentery, they may cause intermittent abdominal pain.¹⁷ Right atrial myxomas may cause pulmonary emboli or paradoxical emboli through an atrial septal defect or a patent foramen ovale.¹¹
4. Clinical picture of subacute bacterial endocarditis with positive blood cultures (seen in two of the patients we studied) or intermittent fever with negative blood cultures (seen in two patients).^{11,13}
5. Palpitations and premature ventricular contractions (seen in one patient), syncope (seen in one patient), and hemoptysis (seen in one patient). None of these symptoms is suspicious of atrial myxoma, but the presence of them should alert the physician to do cardiac evaluation.
6. Constitutional symptoms such as fever, weight loss, joint pain, vasculitis, high erythrocyte sedimentation rate, anemia, leukocytosis, and increased level of immunoglobulin.^{2,5,11,14,18} Acrocyanosis

was seen in one of our cases. Polycythemia has been reported to occur with myxomas.¹⁴ Multiple hospital admissions for the treatment of chronic bronchitis and for treatment of what was thought to be viral pneumonia were necessary in two separate patients.

Physical examination of patients with myxomas usually simulates atrioventricular valve stenosis, regurgitation, or both.¹¹ Tumor "plop" is due to the sudden arrest of the tumor's movement in the left ventricle.² This sound is usually misinterpreted as an opening snap and was observed in two of the patients we studied. Prominent neck veins with a giant a-wave result from tricuspid regurgitation in right atrial myxomas. Hepatomegaly, ascites, and peripheral edema are seen as a result of right-sided heart failure or tricuspid regurgitation.⁸

Although pedunculated myxomas would presumably tend to fall into the mitral or tricuspid valve at an early stage of the disease causing an acute drop in cardiac output, we have found it difficult to draw any relationship between the duration of symptoms, the age of the patient, the size of the tumor, and the sessile or peduncular configuration of the lesion.

M-mode or, recently, two-dimensional echocardiography is the best non-invasive diagnostic tool. (Figures 5 and 6)^{2,6,15} In nine of our patients this was used with 100% accuracy, although false-negative echocardiograms have been reported.³ Cardiac catheterization with injection of the dye into the superior vena cava for right atrial myxomas and into the pulmonary artery for left atrial tumors demonstrates a filling defect. (Figures 7 and 8) A filling defect in the left atrium is sometimes

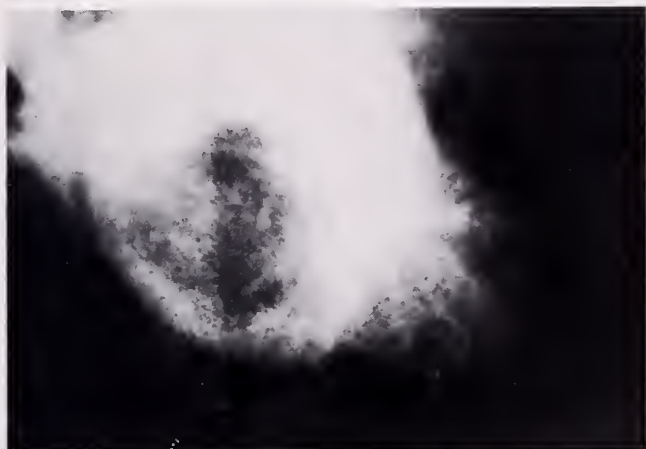


Fig 7: Levophase of pulmonary artery injection showing tumor inside left atrium.



Fig 9: Ventricular injection showing tumor inside left atrium.

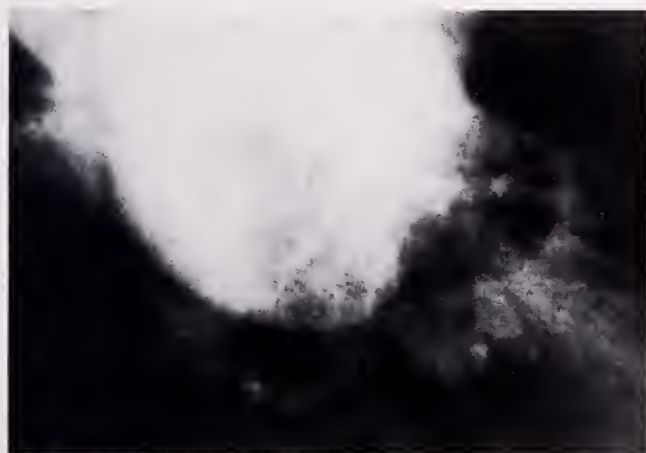


Fig 8: Levophase of pulmonary artery injection showing tumor protruding through the mitral valve.



Fig 10: Ventricular injection showing tumor protruding through the mitral valve.

seen by left ventricular injection. (Figures 9 and 10) A false-negative cardiac catheterization was seen in one of our patients who was diagnosed as having mitral stenosis only. In this patient the dye was not injected into the pulmonary artery and there was a 24 mm Hg gradient across the mitral valve. She died during an attempted emergency closed mitral commissurotomy performed with the patient in shock with acidosis.

Excision of the tumor with a large portion of the atrial wall, exploration of all cardiac chambers through bilateral atriotomies, and careful examination of the atrioventricular valves are imperative.^{2,4,7,8,11,15,19} It is important to be wary of the possibility of multicentric lesions. For large right atrial tumors, direct cannulation of the superior vena cava and retrograde cannulation of the inferior vena cava through one of the femoral veins reduces the incidence of fragmentation and embolization of the myxoma.^{5,7,11,20}

Long-term postoperative follow-up is mandatory, since the true rate of recurrence is not known.^{4,14} Periodic echocardiography, determination of hemoglobin levels, erythrocyte sedimentation rate, leukocytic counts, and serum protein levels aid in the early discovery of tumor recurrence.² The fact that recurrence developed within six months in one of our cases, and only six weeks after a normal screening echocardiogram, indicates an extremely rapid growth of the returning tumor. The exact cause of recurrence in myxomas is not clear, but it could be caused by inadequate initial resection, high grade of malignancy, and possibly a multicentric origin of the tumor.^{4,7,11} Read *et al* have reported that myxoma in the left atrium can metastasize in some patients.²¹ The extremely rare potential for malignancy or recurrence cannot be predicted from the microscopic appearance of the primary tumor. This threat must be considered during surgery in taking measures to pre-

ATRIAL MYXOMA—Attum, Ogden and Lansing

vent the embolization of a tumor fragment that could promote metastasis.²¹

Acknowledgment

We appreciate the editorial and research assistance of Marilyn W. Schrader, B.A.

References 1. Bulkley BH, Hutchins GM: Atrial myxomas. A fifty year review. *Am Heart J* 97:639-43, 1979. 2. Paulson W, Nolewajka AJ, Boughner DR, et al: Left atrial myxoma. Report of six cases and review of the literature. *Can Med Assoc J* 123:518-23, 1980. 3. Stewart JA, Warnica JW, Kirk ME, et al: Left atrial myxoma. False negative echocardiographic findings in a tumor demonstrated by coronary arteriography. *Am Heart J* 98:228-32, 1979. 4. Richardson JV, Brandt B III, Doty DB, et al: Surgical treatment of atrial myxomas. Early and late results of 11 operations and review of the literature. *Ann Thorac Surg* 28:354-8, 1979. 5. Attar S, Lee YC, Singleton R, et al: Cardiac myxoma. *Ann Thorac Surg* 29:397-405, 1980. 6. DePace NL, Soulen RL, Kotler MN, et al: Two dimensional echocardiographic detection of intraatrial masses. *Am J Cardiol* 48:954-60, 1981. 7. Kabbani SS, Cooley DA: Atrial myxoma. Surgical considerations. *J Thorac Cardiovasc Surg* 65:731-7, 1973. 8. Imperio J, Summers D, Krasnow N, et al: The distribution patterns of biatrial myxomas. *Ann Thorac Surg* 29:469-73, 1980. 9. Burech DL, Teske DW, Haynes RE: Right atrial myxoma in a child. *Am J Dis Child* 131:750-2, 1977. 10. Goldberg HP, Glenn F, Dotter CT, et al: Myxoma of the left atrium. Diagnosis

made during life with operative and post-mortem findings. *Circulation* VI: 762-7, 1952. 11. Symbas PN, Hatcher CR Jr, Gravanis MB: Myxoma of the heart. Clinical and experimental observations. *Ann Surg* 183:470-5, 1976. 12. Casarotto D, Bortolotti U, Russo R, et al: Surgical removal of a left atrial myxoma during pregnancy. *Chest* 75:390-2, 1979. 13. Powers MC, Falkoff M, Heinle RA, et al: Familial cardiac myxoma. Emphasis on unusual clinical manifestations. *J Thorac Cardiovasc Surg* 77:782-8, 1979. 14. St. John Sutton MG, Mercier LA, Guiliani ER, et al: Atrial myxomas. A review of clinical experience in 40 patients. *Mayo Clin Proc* 55:371-6, 1980. 15. Abdulla AM, Stefadourous MA, Mucha E, et al: Left atrial myxoma. Echocardiographic diagnosis and determination of size. *JAMA* 238:510-1, 1977. 16. Lansing AM, Masri ZH, Girardet RE: Coronary bypass grafts. Current indications and experience. *J Ky Med Assoc* 74:388-92, 1976. 17. Potts JL, Johnson LW, Eich RH, et al: Varied manifestations of left atrial myxoma and the relationship of echocardiographic patterns to tumor size. *Chest* 68:781-4, 1975. 18. Graham SL, Sellers AL: Atrial myxoma with multiple myeloma. *Arch Intern Med* 139:116-7, 1979. 19. Read RC: Cardiac myxoma and surgical history. *Ann Thorac Surg* 29:395-6, 1980. 20. Melo J, Ahmad A, Chapman R, et al: Primary tumors of the heart. A rewarding challenge. *Am Surg* 45:681-3, 1979. 21. Read RC, White HJ, Murphy ML, et al: The malignant potentiality of atrial myxoma. *J Thorac Cardiovasc Surg* 68:857-68, 1974.

From the Heart Institute of Kentucky, Inc., Louisville, Kentucky. Reprint requests: Abdulla A. Attum, M.D., 718 Medical Towers North, 624 South Floyd Street, Louisville, Kentucky 40202.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal."

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Surgical Management of Congenital Lung Cysts: A 16-Year Review

PORTER MAYO, M.D., SIBU P. SAHA, M.D., GRAYDON A. LONG, M.D. AND CONNIE POWELL

Even though congenital pulmonary cysts have long been recognized as a pathologic entity, interest in this disease was lacking until 1925 when Koontz introduced the subject into the American literature.¹ Anspach and Wolman in 1933 reported the death of two patients treated by thoracentesis.² The inadvisability of management of these cysts by aspiration and tube drainage has been confirmed repeatedly.³⁻⁵ Sauerbruch, it is believed, was the first to resect the lesion in 1934.⁶ In 1943, Tyson reported four successful resections of the cysts and within a few years resectional therapy was well established.^{7,8}

Lung cysts are developmental malformations resulting from abnormal budding and branching of the tracheobronchial tree.⁹ They may occur in the lung or mediastinum, the precise nature and location determined by the time of separation of the more distal pulmonary elements from the main pulmonary buds during the developmental period.¹⁰

The differential diagnosis should include (1) bronchiectasis, (2) lung abscess, (3) tuberculous cavities, (4) lobar emphysema, and (5) pneumatocele.¹¹ A diagnosis is made by chest radiographs often prompted by the development of symptoms of recurrent pneumonia.

Lung cysts are of special interest because of the great variation in symptoms that they present and the problems experienced in their differential diagnosis. Numerous reports document the potentially lifethreatening aspect of lung cysts, including the possibility of the development of carcinoma.¹²⁻¹⁴ The prognosis is excellent when surgically resected.^{15,16}

Materials and Methods

From 1963 through 1979, 22 patients had pulmonary cysts confirmed by surgical resection and pathology examination. (Table I) The youngest patient was age 14

and the oldest patient age 76. The median age was 45. The sex distribution was equal, 11 women and 11 men. Cysts in 11 patients were located in the mediastinum (central). Eleven patients had a cyst located in the lung (peripheral). Three of the peripheral lesions were in the right lung, one cyst in the middle lobe and three cysts in the lower lobe. Seven lesions were present in the left lung, four cysts in the upper lobe and three cysts in the lower lobes. Eleven patients were asymptomatic. Symptoms in the remaining 11 patients were those associated with infection, namely cough, fever, chest pain, dyspnea, and hemoptysis. Thirteen patients were treated by open thoracotomy and simple excision of the cysts. Five patients had segmental resections. Lobectomies were performed in four patients. There were no complications and no deaths. Follow-up studies were completed on all 22 patients varying from four to 18 years. There were no late complications and no recurrent cysts.

Discussion

Cysts are seldom demonstrable at birth. They tend to remain clinically silent but may be discovered by chest radiographs or because they give rise to symptoms when they become infected or by enlarging and compromising an adjacent airway.¹⁷ Their first appearance in adult life does not disprove their congenital nature; such defects grow at an equal pace with a host, and lung growth continues for several years.¹⁸ The cysts may or may not communicate with the parent bronchus, since they originate before formation of the bronchi.¹⁹ Infection frequently occurs and reaches the cysts either by the bronchial tree or by the bloodstream; however, this complication is often delayed until adult life.

Most lung cysts vary in size between two and 10 centimeters in diameter, usually containing a single cavity. The walls may be thin or moderately thick and

TABLE I

Bronchogenic cysts

NUMBER	AGE	SEX	RACE	SYMPTOMS	SIDE	LOCATION	SURGICAL PROCEDURE
1	37	M	W	Asymptomatic	R	Central	Simple excision
2	50	M	W	Asymptomatic	R	Peripheral	Simple excision
3	14	F	W	Asymptomatic	R	Central	Simple excision
4	37	F	W	Chest pain	R	Central	Simple excision
5	44	F	W	Cough	R	Central	Simple excision
6	20	M	B	Roentgenogram following accident	L	Central	Simple excision
7	31	F	B	Asymptomatic	R	Central	Simple excision
8	39	M	W	Cough; dyspnea	L	Peripheral	Wedge resection LUL
9	18	M	W	Asymptomatic	L	Peripheral	Wedge, resection, LUL
10	53	F	W	Fever	L	Peripheral	LLL resection
11	19	F	W	Cough; weight loss	L	Peripheral	Wedge resection, LUL
12	60	M	W	Asymptomatic	L	Peripheral	LLL resection
13	48	F	W	Chest pain	R	Central	Simple excision
14	52	M	W	Asymptomatic	Midline	Central	Simple excision
15	46	F	W	Chest pain; dyspnea	R	Central	Simple excision
16	76	M	W	Asymptomatic	L	Central	Simple excision
17	45	F	W	Asymptomatic	K	Central	Simple excision
18	46	F	W	Asymptomatic	L	Peripheral	LLL resection
19	48	M	W	Chest pain; hemoptysis	L	Peripheral	Segmental resection, L
20	47	F	W	Hemoptysis	R	Peripheral	Simple excision
21	45	M	W	Cough; fever	R	Peripheral	RLL resection
22	18	M	W	Asymptomatic	L	Peripheral	Simple excision

contain fibrous tissue interspersed with smooth muscle, elastic tissue and cartilage. The content is a clear, odorless, viscid material similar to the uninfected mucus seen in the chronically atelectatic lungs. Histologically, the peripheral cysts are lined by flattened epithelium; the central, more proximal cysts have a columnar ciliated epithelial lining. The histologic picture is almost impossible to interpret when superimposed infection has destroyed all vestiges of the lining membrane.²⁰

The mediastinal bronchogenic cysts may occur in the paratracheal, carinal, hilar or para-esophageal areas.²¹ Most often they are located in close relationship to the carina, and present as a single and silent cyst which rarely communicates with the tracheobronchial lumina. The peripheral cysts may involve any part of the lung but are most common in the lower lobes. They may be single or multiple and are more apt to cause symptoms due to a more frequent communication with the parent bronchus.

Although bronchoscopy, bronchography, and other diagnostic measures may be, at times, useful, diagnosis is almost always by chest roentgenograms. Radiograph-

ically, the central bronchogenic cyst has a smooth, round, homogeneous appearance located in close proximity to the major air passage (Figure I). The peripheral lung cyst casts circular shadows with thin walls, possibly air containing and confused to a segment or lobe with no sign of inflammation in neighboring tissue.²² (Figure II) If infected, the cysts will appear as a relatively thick-walled cavity with an air-fluid interface (Figure III-A&B).

The majority of these cysts produce symptoms in infancy or in adulthood and they do so in two ways.^{17,23-27} The first is by infection of the cyst itself or by obstruction and secondary pneumonitis. The second is by a valve-like obstruction in the narrow channel between the cyst and the tracheobronchial tree which creates an expanding and tension cyst, causing compression of neighboring bronchi. Symptoms due to bronchial obstruction are far less frequent but more important because the obstruction is life-threatening. Tension cysts usually occur in infancy or childhood. The morbidity of the infection and the attendant risk of hemorrhage, abscess formation, and rupture into a bronchus constitutes the primary indication for resection.

Journal of the Kentucky Medical Association



Fig. I: An oval-shaped, sharply demarcated cyst attached to the left main stem bronchus but did not communicate.

Surgical resection is the treatment of choice for the symptomatic or asymptomatic patient with lung cysts.²⁸⁻³¹ The cyst will not spontaneously disappear: it should be excised when the diagnosis is made. Aspiration is hazardous because of the possible tension pneumothorax resulting from rupture of the cyst and because infection of the cyst can complicate the clinical course and make resection more difficult. Prolonged observation invites pulmonary abscess, recurrent pneumonia, or possible rupture and tension pneumothorax. The choice of operation depends on the precise pathology and location. Several factors may affect the surgical procedure: (1) the location, (2) pulmonary involvement, (3) secondary complications, and (4) preservation of pulmonary function. Simple excision of the cyst is preferred when the location of the lesion permits and if no infected tissue must be transected. Lobectomy may be required if the lung tissue has been destroyed by infection or replaced by cysts. The prompt recognition and immediate excision of the cyst provides relief of symptoms, is definitive and usually safe.



Fig. II: A thin walled cyst with an air-fluid level in the right lower lobe of an asymptomatic patient.

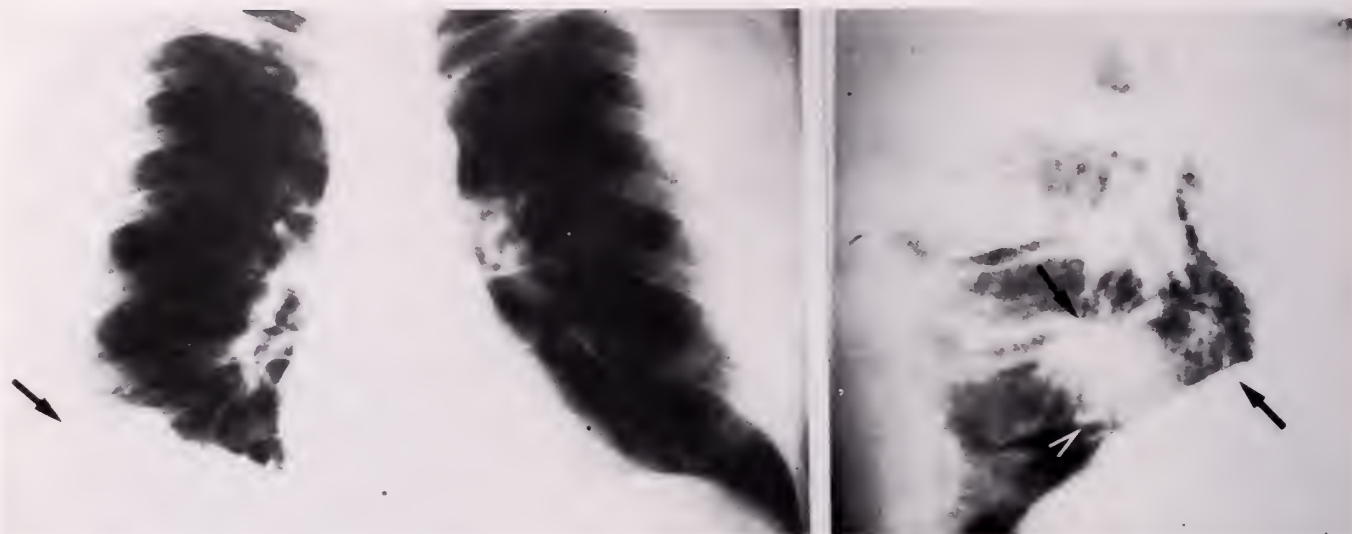


Fig. III: PA(a) and lateral (b) views show an infected, thick walled cyst in the right lower lobe of a patient having a history of recurrent pneumonia.

References 1. Koontz AR: Congenital Cysts of the lung. *Bull John Hopkins Hospital*: 37:340–361, 1925. 2. Anspach WE, Wolman IJ: Large pulmonary air cysts of infancy with special reference to pathogenesis and diagnosis. *Surg Gynec Obstet* 55:634–645, 1933. 3. Crossett ES, Shaw RR: Pulmonary resection in the first year of life. *Surg Gynec Obstet* 97:417–424, 1953. 4. Gilbert JW Jr, Myers RT: Intrathoracic tension phenomena in the neonatal period and infancy. *Arch Surg* 76:402–406, 1958. 5. Ravitch MM, Hardy JB: Congenital cystic disease of the lung in infants and in children. *Arch Surg* 59:1–36, 1949. 6. Sauerbruch F: Die operative Behandlung der kongenitalen Bronchiektasen. *Arch Klin chir* 180:312–320, 1934. 7. Tyson MD: The surgical management of solitary cysts or cystlike structures of pulmonary origin. *Ann Surg* 118:50–75, 1943. 8. Fischer CC, Tropea F Jr, Bailey CP: Congenital pulmonary cysts: Report of an infant treated by lobectomy with recovery. *J Pediatr* 23:219–223, 1943. 9. Grosfeld JL, Ballantine TVN: *Surgical distress in infancy and childhood*. Year Book Medical Publishers, Inc. Chicago, Illinois 1976, 43–44. 10. Cooke FN, Blades B: Cystic disease of the lungs. *J Thorac Cardiovasc Surg* 23:546–548, 1952. 11. Westerheide RL: An unusual complication of a bronchogenic cyst. *J Thorac Cardiovasc Surg* 47:389–393, 1964. 12. Moersch HJ, Claggett OT: Pulmonary cysts. *J Thorac Cardiovasc Surg* 16:179–199, 1947. 13. Dickson JA, Claggett OT, McDonald JR: Cystic disease of the lungs and its relationship to bronchiectatic cavities. *J Thorac Cardiovasc Surg* 15:196–204, 1946. 14. Womack NA, Graham EA: Epithelial metaplasia in congenital cystic disease of the lung: its possible relation to carcinoma of the bronchus. *Am J Path* 17:645–653, 1941. 15. Lichenstein H: Congenital multiple cysts of the lung. *Chest* 24:646–654, 1953. 16. Jones JC, Almond CH, Snyder HM, Meyer BW: Congenital pulmonary cysts in infants and children. *Ann Thorac Surg* 3:297–306, 1967. 17. Schmidt FE, Drapanas T: Congenital cystic lesions of the bronchi and lungs. *Ann Thorac Surg* 14:650–657, 1972. 18. Spencer H: *Pathology of the lung*. (3rd ed.). W.B. Saunders Co. 1977:89–93. 19. Haller JA, Golloday ES, et al: Surgical management of lung bud anomalies: lobar emphysema, bronchogenic cyst, cystic adenomatoid malformation and intralobar sequestration. *Ann Thorac Surg* 28:33–43, 1979. 20. Sabiston DC, Spencer FC: *Gib-*

bons surgery of the chest. (3rd ed.) W.B. Saunders Co. 1976:620–621. 21. Maier HC: Pulmonary cysts. *Am J Surg* 54:68–81, 1941. 22. Young LW, Haemovici H, La Vigne RJ, Gilchrist M: Radiological case of the month: congenital cysts of the lung. *Am J Dis Child* 133:81–82, 1979. 23. Hermann JW, Jewitt TC Jr, Gallette G: Bronchogenic cysts in infants and children. *J Thorac Surg* 37:242–250, 1959. 24. Swan H, Aragon GE: Surgical treatment of pulmonary cysts in infants. *Pediatrics* 14:651–658, 1954. 25. Baum GL, Raez I, Bubis J, Molho M: Cystic disease of the lung: report of eighty-eight cases with an ethnologic relationship. *Ann J Med* 40:578–600, 1966. 26. Faheer MA, Kattan KR: Asymptomatic mediastinal mass in a 49-year-old man. *JAMA* 241:1619–1620, 1979. 27. Opsahl T, Berman EJ: Bronchogenic mediastinal cysts in infants: case report and review of the literature. *Pediatrics* 30:372–377, 1962. 28. Schenck SG: Congenital cystic disease of lung, a clinic's pathological study. *AJR* 35:604–629, 1936. 29. Minnis JF: Congenital cystic disease of the lung in infancy. *J Thorac Cardiovasc Surg* 43:262–266, 1962. 30. Campbell DP, Raffensperger JG: Congenital cystic disease of the lung masquerading as diaphragmatic hernia. *J Thorac Cardiovasc Surg* 64:592–595, 1972. 31. Mayo P, Saha S: Active tuberculosis in a congenital lung cyst. *J Ky Med Assoc* 80:75–77, 1982.

Reprint requests to Porter Mayo, M.D., 3325 Braemar Drive, Lexington, KY 40502

**as one physician
to another. . .**



**"Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?"**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company · P.O. Box 35880 Louisville, Ky. 40232
TOLL FREE 1-800-292-1858 · Louisville Area 459-3400

Roche salutes the history of Kentucky medicine

THE DOCTOR WHO PIONEERED ABDOMINAL SURGERY



Dr. Ephraim McDowell

In 1795, Dr. Ephraim McDowell of Virginia settled in the village of Danville, Kentucky. His practice took him on horseback over hundreds of miles of wilderness.

Nevertheless, his reputation as a skillful and successful surgeon spread—especially for lithotomies, which he performed 22 times without losing a patient.¹

First ovariectomy

McDowell's true moment in history came in 1809, when he performed the first known ovariectomy for removal of a tumor from Jane Crawford, then 47. The procedure was completed in 25 minutes, and Mrs. Crawford not only recovered but lived to age 78.^{1,2}

This landmark surgery was performed under the most primitive conditions—without anesthesia or anti-

sepsis—while, the story is told, brave Mrs. Crawford distracted herself as best she could by singing hymns.²

His published reports of this case, along with two others in 1817 and an additional two in 1819, established Dr. McDowell as the physician who saved women afflicted with ovarian disease from their previously hopeless situation and, further, marked the beginning of abdominal surgery.¹ To European medical practitioners, Dr. McDowell's accomplishments offered clear evidence that medicine was coming of age in America.³

References: 1. Garrison FH. *An Introduction to the History of Medicine*, 4th ed Philadelphia, W B Saunders Company, 1929, pp 507-508 2. Packard FR. *History of Medicine in the United States*, vol II New York, Hafner Publishing Company, 1963, pp 727-728 3. Shaffel N. The evolution of American medical literature, in *History of American Medicine*, edited by Marti-Ibañez F, New York, MD Publications, 1959, p 106



When the history reveals mixed depression and anxiety...

For the estimated 70 percent of nonpsychotic depressed patients who are also anxious,¹ Limbitrol provides both amitriptyline, specific for symptoms of depression, and the effects of Librium® (chlordiazepoxide HCl/Roche), the tested and dependable anxiolytic. Limbitrol is, therefore, a better choice for these patients than dual agents that contain a phenothiazine, a class of antipsychotic drugs which has been associated with tardive dyskinesia.

62% of Overall Improvement...Within the First Week

Limbitrol also has a rapid onset of action which may lead to greater patient compliance. In a multicenter study, patients taking Limbitrol experienced 62% of their overall improvement within the first week of therapy.²

In another multicenter study,³ the following symptoms associated with anxious depression were significantly reduced during the first two weeks of therapy:

- ☐ Headache—79%
- ☐ Early insomnia—91%
- Middle insomnia—87%
- Late insomnia—89%
- ☐ Gastrointestinal upset—73%

In two multicenter studies, only 1.9% of Limbitrol patients experienced cardiovascular side effects.³

Patients should be cautioned about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness such as operating machinery or driving a car.

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jorvik ME; New York, Appleton-Century-Crofts, 1977, p. 316 2. Feighner JP *et al*: *Psychopharmacology* 61:217-229, Mar 1979 3. Data on file, Hoffmann-La Roche Inc., Nutley, NJ

In moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

LIMBITROL® Tablets (Tranquizer-Antidepressant)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages at 100, Prescription Paks of 50.

References:

1. Stone PH, Turz ZG, Muller JE. Efficacy of nifedipine therapy for refractory angina pectoris. *Am Heart J* 104: 672-681, September 1982.
2. Antman E, Muller J, Goldberg S, et al. Nifedipine therapy for coronary artery spasm. Experience in 127 patients. *N Engl J Med* 302: 1269-1273, June 5, 1980.

BRIEF SUMMARY

PROCARDIA® (nifedipine) CAPSULES

For Oral Use

INDICATIONS AND USAGE: 1. Vasospastic Angina: PROCARDIA (nifedipine) is indicated for the management of vasospastic angina confirmed by any of the following criteria: 1) classical pattern of angina at rest accompanied by ST segment elevation; 2) angina or coronary artery spasm provoked by ergonovine; or 3) angiographically demonstrated coronary artery spasm. In those patients who have had angiography, the presence of significant fixed obstructive disease is not incompatible with the diagnosis of vasospastic angina, provided that the above criteria are satisfied. PROCARDIA may also be used where the clinical presentation suggests a possible vasospastic component but where vasospasm has not been confirmed, e.g., where pain has a variable threshold on exertion or in unstable angina where electrocardiographic findings are compatible with intermittent vasospasm, or when angina is refractory to nitrates and/or adequate doses of beta blockers.

II. Chronic Stable Angina (Classical Effort-Associated Angina): PROCARDIA is indicated for the management of chronic stable angina (effort-associated angina) without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or organic nitrates or who cannot tolerate those agents.

In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in those patients are incomplete.

Controlled studies in small numbers of patients suggest concomitant use of PROCARDIA and beta blocking agents may be beneficial in patients with chronic stable angina, but available information is not sufficient to predict with confidence the effects of concurrent treatment, especially in patients with compromised left ventricular function or cardiac conduction abnormalities. When introducing such concomitant therapy, care must be taken to monitor blood pressure closely since severe hypotension can occur from the combined effects of the drugs. (See Warnings.)

CONTRAINDICATIONS:

Warnings: **Excessive Hypotension:** Although in most patients, the hypotensive effect of PROCARDIA is modest and well tolerated, occasional patients have had excessive and poorly tolerated hypotension. These responses have usually occurred during initial titration or at the time of subsequent upward dosage adjustment, and may be more likely in patients on concomitant beta blockers.

Severe hypotension and/or increased fluid volume requirements have been reported in patients receiving PROCARDIA together with a beta blocking agent who underwent coronary artery bypass surgery using high dose fentanyl anesthesia. The interaction with high dose fentanyl appears to be due to the combination of PROCARDIA and a beta blocker, but the possibility that it may occur with PROCARDIA alone, with low doses of fentanyl, in other surgical procedures, or with other narcotic analgesics cannot be ruled out. In PROCARDIA treated patients where surgery using high dose fentanyl anesthesia is contemplated, the physician should be aware of these potential problems and, if the patient's condition permits, sufficient time (at least 36 hours) should be allowed for PROCARDIA to be washed out of the body prior to surgery.

Increased Angina: Occasional patients have developed well documented increased frequency, duration or severity of angina on starting PROCARDIA or at the time of dosage increases. The mechanism of this response is not established but could result from decreased coronary perfusion associated with decreased diastolic pressure with increased heart rate, or from increased demand resulting from increased heart rate alone.

Beta Blocker Withdrawal: Patients recently withdrawn from beta blockers may develop a withdrawal syndrome with increased angina, probably related to increased sensitivity to catecholamines. Initiation of PROCARDIA treatment will not prevent this occurrence and might be expected to exacerbate it by provoking reflex catecholamine release. There have been occasional reports of increased angina in a setting of beta blocker withdrawal and PROCARDIA initiation. It is important to taper beta blockers if possible, rather than stopping them abruptly before beginning PROCARDIA.

Congestive Heart Failure: Rarely, patients, usually receiving a beta blocker, have developed heart failure after beginning PROCARDIA. Patients with tight aortic stenosis may be at greater risk for such an event.

PRECAUTIONS: General: Hypotension: Because PROCARDIA decreases peripheral vascular resistance, careful monitoring of blood pressure during the initial administration and titration of PROCARDIA is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure. (See Warnings.)

Peripheral edema: Mild to moderate peripheral edema, typically associated with arterial vasodilation and not due to left ventricular dysfunction, occurs in about one in ten patients treated with PROCARDIA. This edema occurs primarily in the lower extremities and usually responds to diuretic therapy. With patients whose angina is complicated by congestive heart failure, care should be taken to differentiate this peripheral edema from the effects of increasing left ventricular dysfunction.

Drug interactions: Beta-adrenergic blocking agents. (See Indications and Warnings.) Experience in over 1400 patients in a non-comparative clinical trial has shown that concomitant administration of PROCARDIA and beta-blocking agents is usually well tolerated, but there have been occasional literature reports suggesting that the combination may increase the likelihood of congestive heart failure, severe hypotension or exacerbation of angina.

Long-acting nitrates. PROCARDIA may be safely co-administered with nitrates, but there have been no controlled studies to evaluate the antihypertensive effectiveness of this combination.

Digitalis. Administration of PROCARDIA with digoxin increased digoxin levels in nine of twelve normal volunteers. The average increase was 45%. Another investigator found no increase in digoxin levels in thirteen patients with coronary artery disease. In an uncontrolled study of over two hundred patients with congestive heart failure during which digoxin blood levels were not measured, digitalis toxicity was not observed. Since there have been isolated reports of patients with elevated digoxin levels, it is recommended that digoxin levels be monitored when initiating, adjusting, and discontinuing PROCARDIA to avoid possible over- or under-digitalization.

Carcinogenesis, mutagenesis, impairment of fertility: When given to rats prior to mating, nifedipine caused reduced fertility at a dose approximately 30 times the maximum recommended human dose.

Pregnancy: Category C. Please see full prescribing information with reference to teratogenicity in rats, embryotoxicity in rats, mice and rabbits, and abnormalities in monkeys.

ADVERSE REACTIONS: The most common adverse events include dizziness or light-headedness, peripheral edema, nausea, weakness, headache and flushing each occurring in about 10% of patients; transient hypotension in about 5%; palpitation in about 2% and syncope in about 0.5%. Syncopal episodes did not recur with reduction in the dose of PROCARDIA or concomitant antianginal medication. Additionally, the following have been reported: muscle cramps, nervousness, dyspnea, nasal and chest congestion, diarrhea, constipation, inflammation, joint stiffness, shakiness, sleep disturbances, blurred vision, difficulties in balance, dermatitis, pruritus, urticaria, fever, sweating, chills, and sexual difficulties. Very rarely, introduction of PROCARDIA therapy was associated with an increase in anginal pain, possibly due to associated hypotension.

In addition, more serious adverse events were observed, not readily distinguishable from the natural history of the disease in these patients. It remains possible, however, that some or many of these events were drug related. Myocardial infarction occurred in about 4% of patients and congestive heart failure or pulmonary edema in about 2%. Ventricular arrhythmias or conduction disturbances each occurred in fewer than 0.5% of patients.

Laboratory Tests: Rare, mild to moderate, transient elevations of enzymes such as alkaline phosphatase, CPK, LDH, SGOT, and SGPT have been noted, and a single incident of significantly elevated transaminases and alkaline phosphatase was seen in a patient with a history of gall bladder disease after about eleven months of nifedipine therapy. The relationship to PROCARDIA therapy is uncertain. These laboratory abnormalities have rarely been associated with clinical symptoms. Cholestasis, possibly due to PROCARDIA therapy has been reported twice in the extensive world literature.

HOW SUPPLIED: Each orange, soft gelatin PROCARDIA CAPSULE contains 10 mg of nifedipine. PROCARDIA CAPSULES are supplied in bottles of 100 (NDC 0069-2600-66), 300 (NDC 0069-2600-72), and unit dose (10x10) (NDC 0069-2600-41). The capsules should be protected from light and moisture and stored at controlled room temperature 59° to 77°F (15° to 25°C) in the manufacturer's original container.

More detailed professional information available on request.

© 1982, Pfizer Inc.



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

Pfizer LABORATORIES DIVISION
PFIZER INC.

*"I can do things that I
couldn't do for 3 yrs. including
joining the human race again."*



*Quotes from an unsolicited
letter received by Pfizer from an
angina patient. While this patient's experience
is representative of many
unsolicited comments received,
not all patients will respond to
Procordia nor will they all
respond to the same degree.*

*"My daily routine consisted of
sitting in my chair trying to stay alive."*

*"My doctor switched me to
PROCARDIA[*] as soon as it became
available. The change in my condition
is remarkable."*

*"I shop, cook and can plant
flowers again."*

*"I have been able to do volunteer
work...and feel needed and useful
once again."*

PROCARDIA can mean the return to a more normal life for your patients—having fewer anginal attacks,¹ taking fewer nitroglycerin tablets,² doing more, and being more productive once again.

Side effects are usually mild (most frequently reported are dizziness or lightheadedness, peripheral edema, nausea, weakness, headache and flushing, each occurring in about 10% of patients, transient hypotension in about 5%, palpitation in about 2% and syncope in about 0.5%).



for the varied faces of angina

PROCARDIA[®]
(NIFEDIPINE) Capsules 10 mg

*Procordia is indicated for the management of:

- 1) Confirmed vasospastic angina.
- 2) Angina where the clinical presentation suggests a possible vasospastic component.
- 3) Chronic stable angina without evidence of vasospasm in patients who remain symptomatic despite adequate doses of beta blockers and/or nitrates or who cannot tolerate these agents. In chronic stable angina (effort-associated angina) PROCARDIA has been effective in controlled trials of up to eight weeks' duration in reducing angina frequency and increasing exercise tolerance, but confirmation of sustained effectiveness and evaluation of long-term safety in these patients are incomplete.

Please see PROCARDIA brief summary on adjoining page.

Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

Upjohn

Pancreas Cancer

DANIEL E. KENADY, M.D.

Pancreatic cancer is increasing in incidence. Despite improvement in diagnostic tests, cure rates remain dismal and therapeutic options are limited. The epidemiology workup and treatment of the patient with pancreatic cancer is outlined.

Cancer of the pancreas, now occurring in 1% of Americans, is increasing in incidence. Rare under the age of 30, pancreas cancer increases with age and is more common in blacks and men than in caucasians and women, respectively.¹ Risk factors for pancreatic cancer are poorly understood. In some areas, the incidence is extremely high in certain ethnic groups. Cigarette smoking increases the risk by approximately 2.5 times. A recent article implicating coffee consumption in the etiology of pancreatic cancer has generated considerable debate and retrospective analysis. Follow-up articles to the original one showed no correlation in three out of the four studies. This issue has yet to be resolved. Two additional risk factors, diabetes mellitus and pancreatitis, probably do not play a causive role. Many patients with pancreatic cancer are diabetics. However, this is probably due to replacement of functioning pancreas with cancer. Pancreatitis is often associated with pancreatic cancer but is probably more a reaction to the tumor than an etiologic feature.²

Most pancreatic cancers (90%) are ductal adenocarcinomas. The most common site is in the head of the pancreas, with body and tail lesions being less common. The tumor is often insidious in onset and spreads to peripancreatic lymph nodes and liver prior to manifesting itself extra-abdominally.³

The most common symptoms of patients with pancreatic cancer are weight loss and pain, each occurring in 80-90% of patients. Jaundice occurs in 20%, usually in patients with lesions in the head of the pancreas. Other symptoms commonly encountered include pruritis, nausea and emesis, and anorexia. Abdominal tenderness is an uncommon finding but occasionally does occur. An abdominal mass is infrequently appreciated unless the patient has liver metastases.^{1,2}

Many diagnostic tests have been employed in the diagnostic and pre-operative staging of pancreatic carcinoma.¹ An UGI series is frequently obtained because of nonspecific GI complaints. With advanced lesions, compression of the duodenum can be demonstrated (hypotonic duodenography is particularly helpful in delineating pancreatic masses). An "inverse three" sign is suggestive of a pancreatic lesion. Transhepatic cholangiography is helpful in delineating the cause of obstructive jaundice and indicating the level of obstruction. Endoscopic retrograde cholangiography and pancreatography (ERCP) is useful in indicating a defect in the pancreatic ductal system or a low blockage of the common bile duct. Ultrasound examinations delineates dilated common bile duct very satisfactorily, and can also, in many cases, indicate a pancreatic lesion by the lack of transmitted shadows. Computerized tomography of the abdomen, particularly with the new generation scanners, has proven very useful in delineating lesions in the pancreas as well as the presence or absence of liver metastases. Serum markers have been utilized to attempt to diagnosis pancreatic malignancies, but these are nonspecific. CEA (carcinoembryonic antigen) is elevated for many other GI and other malignancies. Pancreatic oncofetal antigen (POA) has promise as a marker but is also nonspecific. Liver function test elevation (particularly alkaline phosphatase) has been demonstrated but is nonspecific as well.¹

Pre-operative preparation requires careful nutritional assessment, as many of these patients are depleted and would not withstand a major operative procedure without pre-operative parenteral nutrition. If a patient has lost 10% or more of his body weight, one to two weeks of pre-operative hyperalimentation may reduce morbidity and mortality. Somewhat controversial prior to operation has been the role of hepatic decompression. An early approach to pancreatic cancer was a two stage operation, saving the resection until the liver function was back to normal. A better alternative is to leave the catheter in after transhepatic cholangiography to allow external bile drainage. Four to eight days of pre-operative drainage should decrease liver function tests. It

GRAND ROUNDS

is uncertain whether this will improve morbidity and mortality figures.

The approach to the tumor at laparotomy has two initial purposes: establishing the diagnosis and evaluating resectability. Needle biopsy through the duodenum is the most satisfactory method of establishing a diagnosis.¹ It may be necessary to make a decision to resect without a positive histologic diagnosis, as pancreatic cancer can be very difficult on frozen section to differentiate from pancreatitis. Following attempts at histologic confirmation, resectability is determined by Kocherization of the duodenum and mobilization of the pancreas from the underlying portal vein and superior mesenteric vessels. In addition, peripancreatic lymph nodes when enlarged are biopsied and sent for histologic confirmation. Resection of pancreas in the presence of extrapancreatic spread of pancreatic cancer may not be indicated, as survival in several series was no better than palliative bypass alone. Failure to document spread of pancreatic cancer outside the pancreas should be followed by definitive resection if the patient is in optimal condition. Choice of operation is also a controversial topic.³ Fortner has advocated a regional pancreatectomy for lesions that are extending into portal vein and superior mesenteric vessels with en bloc resection of the vascular structures and vascular reconstruction. Most surgeons, however, do not feel that this type of resection is indicated as the operative mortality would probably far exceed the salvage rate in this group of patients. For small lesions in the head of the pancreas, a Whipple procedure (pancreatoduodenectomy) should be performed. If less than 40% of the stomach is removed in the resection, a vagotomy should be added to protect against anastomotic ulceration. Some surgeons are now preserving the entire stomach and pylorus. If the pancreatic lesion is large, a total pancreatectomy should be performed. Frozen section determination of the pancreatic duct should be performed if a less than total pancreatectomy has been done. Total pancreatectomy has the additional benefit that a major post-operative complication, pancreatojejunal anastomotic fistula, is eliminated. The disadvantage, of course, is that these patients will require lifelong endocrine and exocrine support. Some series have indicated a better survival with total pancreatectomy than with pancreatoduodenectomy.³ However, none of these studies are prospective or randomized. The overall mortality with pancreatoduodenectomy remains in the 15-20% range, raising the question from many surgeons as to whether resection is ever indicated.

If a decision is made to palliate the patient only, several options are available. Most patients will require a biliary bypass. If the tumor does not extend high into the common duct, this can be accomplished with a cholecystojejunostomy, suturing the transected common duct to a Roux-en-Y limb of jejunum. In the very sick patient, a tube placed in the duodenum can later be connected to a transhepatic cholangiography catheter for rerouting of bile. Even if the patient does not have duodenal obstruction, failure to do a gastrojejunostomy results in about 20% later obstruction and need for operation. Therefore, most authors recommend both a biliary bypass and gastrojejunostomy.²

Very few patients are cured with surgical therapy alone. Adding radiation therapy and/or chemotherapy in an adjuvant setting has shown some promise. Combined radiation and chemotherapy, or radiation therapy followed by combined chemotherapy, are at present the most promising alternatives.²

Unresectable pancreatic cancer should in most cases be treated aggressively to extend survival and decrease pain. Placing clips around the tumor at laparotomy will aid later delivery of radiation therapy either in conjunction with or followed by chemotherapy. The use of intraoperative radiation delivery or implantation of the primary tumor has shown promise in some centers. Pain is often a very worrisome feature in the patient who cannot be cured of pancreatic carcinoma. Most clinicians would utilize radiation and/or chemotherapy to attempt to decrease tumor mass to alleviate pain. Another option is injection at the time of laparotomy of the splanchnic nerves with phenol or other substances.¹ This has not definitively been shown to be of benefit, however.

Pancreatic cancer, increasing in incidence, continues to kill most patients who are unfortunate enough to be afflicted with it. Very little progress has been made in prevention, earlier diagnosis, or treatment of this disease. Many randomized clinical trials are currently in progress to try to improve the treatment results of this disease.

References 1. Moussa A R ed: *Tumors of the Pancreas*, publ. by Williams and Wilkins, Baltimore, 1980. 2. MacDonald J S, Gunderson L L and Cohn I: "Cancer of the Pancreas"; in Devita, Hellman and Rosenberg eds., *Cancer—Principles and Practice of Oncology*, pp. 563–589, publ. by J. P. Lippincott/Phil., 1982. 3. Howard J M and Jordan G L Jr: "Cancer of the Pancreas" Current Problems in Cancer II: 3–52, 1977.

From the University of Kentucky Medical Center, Department of Surgery, 800 Rose Street, Lexington, Kentucky 40536-0084. Send reprints requests to the above address.

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA



**FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY**

YOUR FIRST STEP TO FIRST QUALITY PROTECTION

CONTACT FIELD REPRESENTATIVES

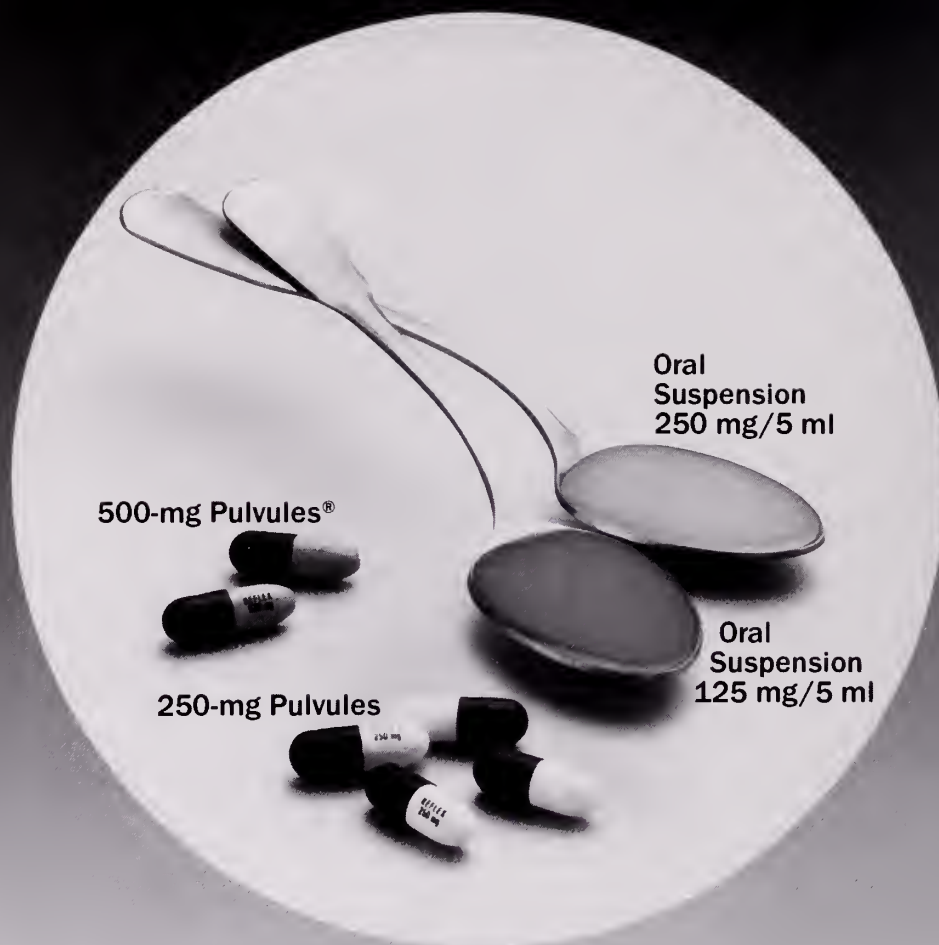
Louisville Office

DONALD G. GREENO
400 Sherburn Lane, Suite 104,
Louisville, Kentucky 40207
(502) 895-5501

Lexington Office

CHARLES E. FOREE
Suite 103B, 152 East Reynolds Road
Lexington, Kentucky 40503
(606) 272-9124

Easy To Take



Keflex[®]
cephalexin

Additional information
available to the profession
on request.



420113

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

EDITORIAL

The Iceman Cometh (With apologies to Eugene O'Neill)

The other day while rummaging through the attic, I came across an ice card. The more senior of us will recall these cards—about a foot square—which the housewives of another day placed in their front windows to notify the ice man what poundage was needed for the old-fashioned cold boxes. The cards were usually divided into quadrants, each containing a number which indicated the amount of ice requested for the day. During the depression years when household resources were frequently minimal housewives often requested less ice than they needed—a sort of self-imposed rationing system.

As far as the health care delivery system in this country is concerned, the ice man has come. However, in this case the rationing is not self-imposed but imposed from without. No more forcefully has this been expressed than by Governor Richard Lamm of Colorado in March of this year. In his oft quoted and oft interpreted speech, Governor Lamm has suggested that terminally ill old people have a “duty to die and get out of the way.” The comment has created a literal outpouring of comment, pro and con.

The governor's words are not without merit. Certainly many people, moralists included, condone discontinuance of extraordinary means of life support in proper circumstance. Nonetheless the rationing concept for health delivery continues to generate more and more moral, economic, social and political issues.

It has been forcefully promulgated that one reason that health care costs are exploding is the expense of the newer technologies. Indeed some have suggested a moratorium on biomedical research to eliminate this one cause of medical cost inflation. To the healthy secure young person such an approach may seem reasonable. It may not be very appealing to the elderly, or sick who need the fruits of past investigation or who hope for a future cure for their illness—now only a vision in the mind of the medical researcher.

About a year ago Doctor David Wyler of Tufts University essayed on the resurgence of malaria and current research efforts being made against this disease. In his concluding remarks Doctor Wyler states that “the resurgence of malaria dictates a need for redoubling our efforts to find ways to prevent malaria and its complications.” He notes however that “concern about overpopulation and diminishing natural resources has led cynics to argue that malaria control may not even be a desirable goal.”

The well being of a nation is dependent in large part on the health of its people. A wealthy nation, a wise government, a concerned citizenry, a resourceful medical profession might well redouble their efforts to assure quality medical care rather than submit inappropriate rationing as the alternative.

G. Randolph Schrod, M.D.

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

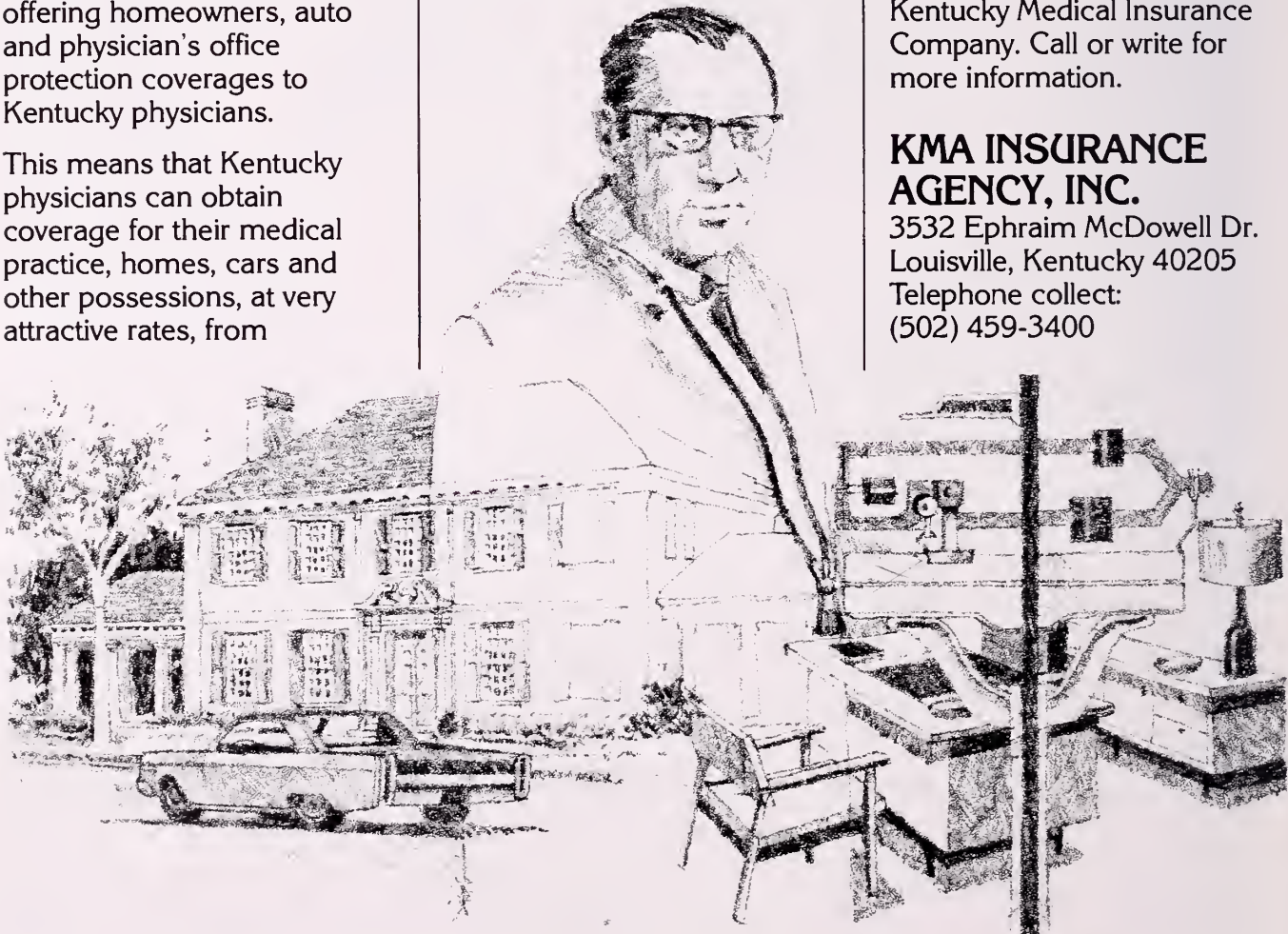
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



SPECIAL ARTICLE

A Brief History of the University of Kentucky Department of Surgery

DOROTHY CLARK, M.D. AND GORDON L. HYDE, M.D.

The Department of Surgery at the University of Kentucky celebrated its 20th year in 1982. During those years a number of colorful and nationally renowned surgeons graced the halls of the University of Kentucky Medical Center (UKMC) and contributed to the development of a prominent, productive and very well respected Department. This report cannot be comprehensive in scope, but it is an attempt to highlight some individuals in the Department and their contributions.

The establishment of the medical school and the Department of Surgery in Lexington, Kentucky represented an extension of the already significant medical events in the central Kentucky area. In 1799, the nation's fifth medical school was initiated at Transylvania University. The school was plagued by personality clashes which resulted in numerous disagreements among the faculty, the most famous of which was a duel in 1818. Doctor William Richardson challenged an elderly physician to the duel; the older man accepted but appointed a young physician, Doctor Benjamin Dudley, to represent him. In the course of the duel Doctor Dudley shot Doctor Richardson in the groin. Attendants were unable to stop the bleeding so Doctor Dudley himself saved his rival by compressing the femoral vessels until the bleeding could be controlled by ligation. Shortly thereafter, one of the more famous members of the faculty, Doctor Daniel Drake departed Lexington to begin the Medical College of Ohio in Cincinnati which eventually became the University of Cincinnati Medical Center. By 1837, the disagreements were of such vehemence that a major schism in the faculty occurred and the stronger faction moved to Louisville to begin what is now the University of Louisville Medical School. Finally in 1858 Transylvania University Medical School closed its doors.

During the beginning of the 19th century several notable medical achievements occurred in Central Kentucky. Vaccination for smallpox was discovered in 1799; in 1802 Doctor Sam Brown vaccinated over 500 Lexingtonians. In nearby Danville, Doctor Ephraim McDowell performed the first oophorectomy on Mrs. Jane Todd Crawford at his home on Christmas day in 1809. This landmark case was done without any anesthesia, and the patient recovered fully.

As early as 1928 the possibility of affiliating a medical college with the University of Kentucky was begun. At that time the University president, Frank L. McVey, approached Doctor J.S. "Brick" Chambers, who was the student health physician at the University, and asked him to develop data which would give an impetus to the initiation of a medical school at the University. A year later the medical school almost became a reality when a wealthy bluegrass land owner decided to contribute a medical center to the University of Kentucky. Unfortunately the generous gift was never forthcoming because the gentleman lost heavily in the crash of 1929 and died a few months later.

In the late 1940's, the Fayette County Medical Society led by Doctor Coleman C. Johnston, III, who was then the President also began discussions regarding the development of a medical school at the University of Kentucky. Dr. Johnston received his M.D. degree from the University of Virginia and later trained in Surgery at the University of Maryland. He came to Lexington as an associate of Doctor Fred Rankin, a world renowned surgeon. Under the leadership of Doctor Johnston the Kentucky Medical Education Foundation was established. Other influential physicians in this group were Doctor Chambers, Doctor Francis Massie, a leading general surgeon in Lexington, and Doctor Edward H. Ray, Sr., the premier urologist in Lexington. They

SPECIAL ARTICLE

worked for several years building support among physicians in the state using Doctor Chamber's data which showed alarming statistics about medical care in Kentucky. For example, in 1950 Kentucky ranked near the bottom in physician:patient ratio and lacked an estimated 1400 doctors. One year earlier 5000 births had occurred with no physician in attendance, and Kentucky ranked third from the bottom in infant mortality rate. The data also disclosed that one out of every three Kentuckians examined for military service during World War II were medically unfit.

Undoubtedly the greatest impetus for the development of the College of Medicine at the University of Kentucky came from A.B. "Happy" Chandler who during his candidacy for another term as governor of the Commonwealth of Kentucky in 1955 promised to establish a medical school at the University of Kentucky. The first item in his budget of 1956-1958 was an initial funding of \$5,000,000.00 for the establishment of the College of Medicine. This was approved by the State Legislature, and an additional \$1.2 million was provided by the Federal Government.

Doctor William R. Willard, then at Syracuse, was selected as the first dean of the new school. He accepted the challenge at U.K. because "it offers an opportunity given to relatively few, namely to develop a medical center from the beginning." Temporary headquarters were set up in the basement of the University's Fine Arts Building, and an architect, Doctor Don Nelson, was chosen to design a 400 bed teaching hospital and medical school at an estimated cost of \$25,000,000. Mr. Nelson was a member of a St. Louis firm which had also designed the Mayo and Cleveland Clinics.

When the time came to select a surgery chairman, Dean Willard took the advice of the local surgeons already mentioned and many others. The eventual choice was Doctor Ben Eiseman, then president of the Society of University Surgeons and Professor of Surgery at the University of Colorado. Doctor Coley Johnston recalls the selection process vividly, and says hopes were high that Doctor Eiseman could be secured for he "was the smartest young thing in the country." Doctor Eiseman, intrigued by the opportunity to create a new department, accepted the challenge and came to Lexington. What he found, as he described it, was "a buccolic place with no school, a small farmhouse, and a cornfield." Doctor Eiseman immediately set about assuring the Lexington surgeons that he and whatever surgeons were recruited were there to help them. He was aided in his early decisions by what he called his "kitchen

cabinet," namely Doctors Johnston, Massie, Ray, and Doctor Ralph Angelucci.

Doctor Eiseman was anxious to secure the finest faculty available and was given a free hand and a fairly liberal budget to accomplish this task. He sought good clinical surgeons who also were capable of investigation. Since UKMC was not yet built in 1960, the first hospitals utilized by the University of Kentucky were the Leestown Veterans Administration Hospital as well as the Narcotics Hospital, now the Federal Correctional Institute. The latter institution had some reputation in drug addiction investigation. The first four surgeons whom Doctor Eiseman recruited represented specialists in the fields of gastrointestinal surgery, oncology, and thoracic surgery. When the surgical programs were opened in the two Federal hospitals, Doctor Eiseman was reminded by the administration that he had been brought to Kentucky to educate general practitioners and not surgeons. More pointedly, he was told he could not do complicated cases at one of the hospitals. When he asked what constituted a complicated case, he was told he was not allowed to perform a cholecystectomy because it might require common duct exploration. Within three months open heart procedures were being done at the Leestown Veterans Administration Hospital under the tutelage of Doctor Frank C. Spencer.

At that time, in 1960, there were no medical students and just a few residents. Therefore, the faculty had a great deal of time to teach as well as to begin investigations. Doctor Eiseman attributed the Department's early success to a fine staff, enthusiasm, extremely cooperative local surgeons, and what he called "instant tradition." There was even a departmental tie, blue with a stripe across it of a thin outer gold and inner green between which was a broader red stripe. Many stories abound about the significance of the colors of the stripes involving bile, blood and bullions.

The first seven surgeons Doctor Eiseman recruited eventually became department or division chiefs at other institutions. Doctor Frank C. Spencer was named to the chair of the Department of Surgery at New York University, a position he still holds. He earned a nickname among the residents of "tombstone" or "graveyard" because of his propensity to do hopeless cases. He is a widely published surgeon and well known for coauthoring the Schwartz textbook of surgery and co-editing the Gibbons textbook of thoracic surgery. Doctor Ben Rush had the initial responsibility of supervising both the oncology and the pediatric surgery service. From his military service as well as his own research he was

SPECIAL ARTICLE

an early advocate of lactated Ringer's solution to replace blood loss. He later left to become chairman of the Department of Surgery at the New Jersey School of Medicine and Dentistry, a position he still holds. Doctor Rene Menguy trained at the Mayo Clinic, and he came to Kentucky from the University of Oklahoma. In 1965 he left to become chairman of the Department of Surgery at the University of Chicago, a position he held until 1971. At the present time he practices general surgery in Rochester, New York. Doctor Lester Bryant joined the faculty in 1963 and started his career as the chief and only surgeon at the Veterans Administration Hospital. He subsequently became full professor, journeyed to Louisiana State University as the chief of cardiothoracic surgery and then in 1979 was named to the chair of the Department of Surgery at the East Tennessee Medical School.

Meanwhile Doctor Eiseman was busy filling the positions of the chiefs of the various divisions. Doctor Charles Wilson was the first full-time divisional chief as the head of the division of neurosurgery. He was immediately popular despite his desire to make rounds at "ungodly hours of the day and night with a cadre of medical students, interns, and residents all bubbling and chattering in his wake." Morning rounds began at 5:00 a.m., and it was said that once he was making cardiothoracic surgery rounds *before* his group did so that for the following month neurosurgery began its rounds at 3:00 a.m. After less than a year Dr. Wilson received the award of outstanding clinical instructor. He is currently in the Naftziger chair of neurosurgery and chief of the division of neurosurgery at the University of California at San Francisco. Doctor Thomas D. Brower was the next divisional chief to come on board and remains as chief of orthopedic surgery at the College of Medicine and the grand old man of the department. Doctor Paul Weeks arrived in July of 1964 as chief of the division of plastic surgery. He was fresh out of his residency at the University of North Carolina, but was bright, energetic, and argumentative. He enjoyed creating deliberate controversy with Doctor Brower during Grand Rounds in order to annoy Doctor Eiseman. Doctor Weeks currently has the James Barrent Brown Chair and is chief of the division of plastic surgery at the Washington University School of Medicine and chief of plastic surgery at Barnes Hospital in St. Louis. At Doctor Eiseman's insistence, Doctor Edward A. Ray, Sr., was the first chief of the urology division despite his active private practice. Doctor Ray was anxious to secure some clinical help and did so in the person of

Doctor Kenneth Walton who arrived in early 1965. Upon Doctor Ray's retirement as chief of the division of urology in 1968 Doctor Kenneth Walton succeeded Doctor Ray and remained as chief of the urology division until moving to Emory University School of Medicine in the same position.

Since Doctor Menguy was leaving in 1965, Doctor Eiseman was anxious to recruit another gastrointestinal surgeon to replace him. Doctor Ward Griffen who had completed a general and thoracic residency under the tutelage of Doctor Owen H. Wangenstein at the University of Minnesota and also obtained a Ph.D. in surgery, joined the faculty in the fall of 1965. In addition to his clinical duties he took over the task of teaching GI physiology to the freshman as had Doctor Menguy. Doctor Griffen was asked to succeed Doctor Eiseman as chairman of the department of surgery at the University of Kentucky College of Medicine upon Doctor Eiseman's departure in 1967.

The year 1966 was an active one in terms of recruiting faculty. Doctor Loren Humphrey who had received his M.D. degree and surgical training at the University of Illinois and also had a Ph.D. in immunology from the State University of New York at Buffalo arrived early in the year. He and Doctor Griffen did some of the early work in tumor immunology for melanoma, and eventually Doctor Humphrey was recognized nationally and became chairman of the department of surgery at the University of Kansas. Doctor Myron Kaufmann, a renal transplant surgeon, who arrived in 1966 and began an active renal transplantation program which had floundered to some extent when Dr. Donald Pearl had left the institution in 1964. Finally to replace Doctor Spencer, Doctor Gordon Danielson was recruited from the University of Pennsylvania as the chief of the cardiothoracic division, a position he held until leaving U.K.M.C. to become a section head at the Mayo Clinic.

In taking the chairmanship Doctor Eiseman considered himself an educational missionary. He did that task well with considerable help. In April 1962 University of Kentucky Medical Center opened with 50 beds and three operating rooms. The following year an additional 50 beds were added, and the Alfred Blalock Surgical Laboratory was opened with much fanfare. Departmental chairmen from all over the country were in attendance. About this same time, 1963, Doctor Warren Proudfoot and his associate, Doctor Calvin Bigler, of Morehead, Kentucky began working closely with the Department of Surgery. Initially Doctor Proudfoot made weekly visits to Lexington and took fourth year students

SPECIAL ARTICLE

on a rotation at Morehead. Eventually in 1964 the invaluable resident rotation at Morehead was added and has remained as the most popular rotation.

Local surgical participation was also very important. St. Joseph Hospital had previously had an accredited residency program and it was integrated with the University program in the mid-1960's and has since been as invaluable experience for the first and fourth year residents. Doctors Hull, Hyde, and Stoeckinger at Central Baptist Hospital added additional chief resident experience starting in 1971. Both rotations have continued as important voluntary contributors to the University programs and Doctor Hyde joined the full time faculty in 1979.

This history would not be complete without mentioning several other interesting people and anecdotes. Doctor Charles Wilson's right hand man and eventual successor was Doctor Horace Norrell who was an imposing and outspoken neurosurgeon. Many stories abound about Doctor Norrell which attest to both his size and his frankness. Doctor William Malette became the second chief of surgery at the V.A. Hospital after Doctor Bryant moved to U.K.M.C. It was Doctor Malette who was the driving force for the construction for the new V.A. Hospital and Cooper's Drive, and he was responsible for designing the operating rooms and intensive care unit. He currently is chief of surgery at the Veterans Administration Hospital in Omaha, Nebraska. Doctor Martin Blacker, also a neurosurgeon, succeeded Doctor Norrell as chief of the division of neurosurgery. He is an extremely talented teacher and a fascinating speaker and is currently in practice in Houston, Texas.

Doctor Calvin Ernst joined the faculty in 1972 and was chief of vascular surgery until 1979 when he left to become director of surgery at the Baltimore City Hospitals and professor of surgery at the John Hopkins Hospital. He is renowned for his meticulous surgery as well as his strong opinions and colorful language during cases. Doctor William Jewell joined the faculty in 1968 and was very active in head and neck cancer surgery. One anecdote regarding him is about the time that Doctor Weeks sent a medical student into the operating room with an anatomy book in order the help Doctor Jewell perform his operation. When Doctor Humphrey assumed the chairmanship at the University of Kansas Department of Surgery, Doctor Jewell who had known him as a resident in Illinois joined him there. Doctor Jewell is now chief of the division of general surgery at the University of Kansas. For one year, 1968-69, there was an otolaryngology division at U.K.M.C. Doctor Glen

Hair and William Bost came to the University of Kentucky from the University of North Carolina and performed admirably. Despite the fact that they were on board for less than a year, they received the clinical instructor award as outstanding teachers. Doctor Joe Utley was recruited as a cardiac surgeon following Doctor Danielson's departure and subsequently left to become chief of the division of cardiothoracic surgery at the University of California, San Diego. He, too, was well known for his excellent surgical technique as well as his colorful and attention-getting language in the operating room.

Some residents who have graduated from the program also deserve mention. Doctor Kent Trinkle, who finished his training in both general and thoracic training in 1967, was on the faculty here for a number of years before becoming the chief of cardiothoracic division at the University of Texas Medical School in San Antonio, a position he still holds. Doctor Richard Furman also completed both general and thoracic training at the University of Kentucky and now is a practicing surgeon in Boone, North Carolina and an author. Doctor Shirley Lewis Barron was the first female resident, arriving in 1965. She completed two years of surgical training and decided to become a pathologist, the specialty she now practices in Richmond, Kentucky. Doctor Arthur Hellebush a graduate of the University of Kentucky College of Medicine, completed his urologic residency at Kentucky and was chief of the urology service after Doctor Walton left for Emory before entering private practice in Lexington. Doctor Loyd Megison was the first resident in neurosurgery. He came to the residency program after several years of the private practice of general surgery in Louisiana. Many stories abound about Doctor Megison's ability to sleep including the fact that he once burned his forehead on the lightbulb of Doctor Blacker's head lamp during an operation. Doctor Megison went into private practice in neurosurgery in Baton Rouge, Louisiana, but unfortunately was killed in a plane crash several years ago.

Other residents who have continued in academic surgery include Doctor Larry Norton who was Doctor Eise-man's first resident here and is now the vice chairman at the University of Arizona Medical School. Doctor Leroy Young completed his general surgery training here and then joined his favorite mentor, Doctor Paul Weeks, at the Washington University School of Medicine and the Barnes Hospital to complete his training in plastic surgery. He is now a member of the plastic surgery division there. Dr. Ken Koster who completed

SPECIAL ARTICLE

both general and cardiothoracic surgery at the University of Kentucky eventually became a faculty member at Harvard University and on the staff at the Brigham Hospital in Boston. Currently he is in private practice in Jacksonville, Florida. Doctor Kimball Maull, after completing his training here was on the faculty and then moved to Richmond, Virginia where he was a director of the trauma service at the Medical College of Virginia. He is currently the chief of surgery at the University of Tennessee Medical School Knoxville Campus. Doctor Rodney McMillin was on the faculty at the University of South Carolina in Columbia, South Carolina until this year when he returned to the private practice of general surgery in Louisville. Doctor Ken Kryziniac who

completed his urology training at U.K.M.C. continues as a member of the urology faculty at the University of Carolina in Columbia. Doctor Brack Bivins joined the faculty at the University of Kentucky College of Medicine after completing his residency here. He is a most prolific writer and has gained a national reputation which led to his being recruited to the Henry Ford Hospital as the director of the trauma and nutritional support services. Four other residency graduates remain on the full-time faculty at the University of Kentucky Department of Surgery. These are: Doctor Richard M. Bell, general surgery; Doctor Philip Tibbs, neurosurgery, Doctor Gary Griffith, cardiothoracic surgery, and Doctor Daniel Primm, orthopedics.

Presented at the Meeting of the Kentucky Chapter of the American College of Surgeons in Lexington, Kentucky, April 15-16, 1983.

Are you concerned about what your drinking is doing to you? — to your practice? — to your family?

For Help Call

**COMMITTEE ON
IMPAIRED PHYSICIANS
502/459-9790**



**Our
Agents
Deal You**

**the
Best Hand.**

Choosing professional liability insurance should not be a gamble. Call 1-800-231-2615 for the name of your nearest independent agent; in Texas, 1-800-392-9702.

ICA
The Preferred Underwriter

Kentucky
Medical Management &
Computer Operations

KMCO

A subsidiary of KMA Physicians Services, Inc.

For the physician's office

"Tomorrow's Technology is Here Today"

Created exclusively to deal with the specialized needs of the physician's office, KMCO is ready to answer your questions on all phases of practice management and computer technology. We know a more efficient practice is the key to more efficient patient care.

For Additional Information Call Us At:
Louisville Area 451-2095 or 1-800-292-1675
or mail this coupon

Send me further information on

- ☐ Computer Services
- ☐ Consultation
- ☐ Practice Management Workshops

Name _____

Address _____

City _____ State, Zip _____

Telephone _____

Mail to: KMCO
3532 Ephraim McDowell Dr.
Louisville, KY 40205

LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532

Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

I am astounded at your reprinted squib on "Patient Referrals," found on page 198 of the April issue (82:4). Surely you jest. Or maybe the method described is "marketing." Such a "referral" is no better than saying to the patient "Go find your own (orthopedist, surgeon, gyn, nephrologist, or whatever).

There is no referral unless the initial physician helps the patient with the selection of the consultant, the making of the appointment, and providing the consultant (by telephone or by written communication) with information about the reason for the referral, and what he would like the consultant to do. Simple courtesy to the patient and to the consultant demands such communication.

There are other good reasons why the business card method is a terrible one, but I am satisfied with courtesy.

A pox on you for reprinting such drivel. Kudos, however, to you for the article on Don Barton. Well done.

Sandford Logan Weiler, M.D.

Editors' Note:

Doctor Weiler is, of course, quite right. Good care and good manners require some form of contact between the referring physician and the consultant regarding the patient. We fancied that a card might, in addition, smooth the process.



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

**Endorsed by the
Kentucky Medical Association**



AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

Wally O. Montgomery, M.D., Nominated for President-Elect

Wally O. Montgomery, M.D., a practicing general surgeon from Paducah has been nominated for KMA President-Elect by the McCracken County Medical Society.

Doctor Montgomery graduated from Georgetown College, Summa Cum Laude in 1958 and attended the University of Louisville School of Medicine, graduating in 1962. He interned at Baptist Memorial Hospital, Memphis, Tennessee from 1962-63 and received surgical residency training in University of Louisville hospitals from 1963 to 1967. Doctor Montgomery has had a long military career which he has maintained through the Reserves, and currently serves as a Lieutenant Colonel commanding a Reserve surgical hospital.

Doctor Montgomery is a Fellow of the American College of Surgeons and a Diplomat of the American Board of Surgery. Organizational memberships include the McCracken County Medical Society; KMA, where he currently serves as Vice President and Alternate Delegate to the AMA; KEMPAC, where he has served as Chairman of the Board; Alternate Delegate from Kentucky to the American Medical Association; the Kentucky Surgical Society; and the Southeastern Surgical Society. Doctor Montgomery is a member of the staff of Western Baptist Hospital where he has served as President of the medical staff, and Lourdes Hospital in Paducah.

In civic matters, Doctor Montgomery is a Deacon and committee Chairman of the Immanuel Baptist Church in Paducah; is a member of the Urban Renewal and Community Development Board in Paducah; is a member of the Red Cross Board of Directors and is on the Board of Trustees of Georgetown College, as well as a member of the Optimist Club.

Doctor Montgomery and his wife Gerry have two daughters and one son.



Wally O. Montgomery, M.D.

HEALTH PROFESSIONALS!

The Army Medical Department represents the largest comprehensive system of health care in the United States and offers unique advantages to the student, resident, and practitioner in the following professions:

- Neurosurgery
- General Surgery
- Orthopedic Surgery
- Obstetrics & Gynecology
- Otolaryngology
- Anesthesiology
- Psychiatry
- Child Psychiatry
- Family Practice
- Emergency Medicine
- General Medicine
- Pediatrics

As an Army Officer, you will receive substantial compensation, an annual paid vacation, and participate in a remarkable non-contributory retirement plan.

For more information just fill out the attached form and mail. Or call: (614) 238-2305/3507. (Collect calls accepted.)



Medical School Scholarships are Available

PLEASE SEND MORE INFORMATION ABOUT OPPORTUNITIES
IN THE ARMY MEDICAL DEPARTMENT
MAIL OR CALL:

ARMY MEDICAL DEPT. 530 JACK GIBBS BLVD, BLDG #84
COLUMBUS, OH 43215 (614) 238-2305/3507

NAME _____ AGE _____

ADDRESS _____

ZIP _____ PHONE (AC) _____

SCHOOL ATTENDED/ATTENDING _____

GRADUATION DATE _____ DEGREE _____

SPECIALTY AREA OF INTEREST _____

Physician Recruitment Fair September 15, 1984 Hyatt Regency Hotel Lexington, Kentucky

The Kentucky Medical Association is pleased to announce it will be sponsoring the Sixth Annual Physician Recruitment Fair at the Hyatt Regency Hotel, Lexington, Kentucky on Saturday, September 15, 1984, 11:00 a.m. to 3:00 p.m. The Fair is co-sponsored by the University of Kentucky School of Medicine, the University of Louisville School of Medicine, Department for Human Resources, Kentucky Chamber of Commerce, Kentucky Hospital Association, Kentucky Farm Bureau, and the Rural Kentucky Medical Scholarship Fund.

The program continues to provide the necessary contact between communities and physicians in order to begin the process of recruiting their services in Kentucky. Many communities have been successful in meeting their physician needs as a result of this event.

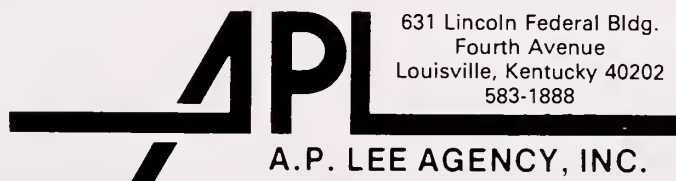
Medical residents from the states of Kentucky, Indiana, Missouri, Ohio, Tennessee, Virginia, and West Virginia will be invited to attend.

Communities, hospitals, and physicians interested in participating in this year's Physician Recruitment Fair are requested to contact Eileen Dougherty at KMA Headquarters Office, 3532 Ephraim McDowell Drive, Louisville, Kentucky, telephone: 502-459-9790.

THE ACCIDENT SEASON IS HERE

The accident benefit of a disability contract is the least expensive portion. However, summer is the season for them with everyone more active — boating, fishing, golfing and what have you.

MAKE SURE THAT YOU'RE PROPERLY INSURED



KMA DISABILITY INCOME PROGRAM

"Where claim service is most important"



SPORTS MEDICINE

1984 KMA ANNUAL MEETING

Sept. 17-20

**Hyatt Regency/Lexington
Convention Center
Lexington, KY**



SPECIAL CONSIDERATIONS FOR THE FEMALE ATHLETE MENSES AND PREGNANCY

William R. Key, Jr., M.D.

Impact of athletic training on reproductive function

A. Puberty

1. Secondary sexual characteristics
2. Menarche
3. Physical characteristics

B. Menstruation

1. Ovulation
2. Dysmenorrhea
3. Premenstrual symptoms

C. Pregnancy

1. Conception
2. Early pregnancy wastage
3. Preterm labor
4. Fetal well-being

II. Impact of reproductive events on athletic performance

A. Menstruation

1. Dysmenorrhea
2. Premenstrual symptoms

B. Pregnancy

1. Cardiovascular changes
2. Musculoskeletal changes

1984 KMA Annual Meeting

Sept. 17-20, 1984

Hyatt Regency/Lexington Convention Center



Charles S. Petty, M.D.

The sudden and unexpected death of an athlete usually arouses a great public interest. This is true whether the athlete be a professional, a listed amateur, or a school child. The dead individual is characterized by family, friends, coaches, and others as being in excellent health. Frequently, the physician who has cared for the now dead individual gave that person a "clean bill of health" at some time not long before the fatal event. The physician is just as puzzled as others about the death.

To understand the death, an autopsy is necessary. The autopsy must be conducted by someone with experience and education in the field of sudden and unexpected death. In addition to the examination of the body after the death, a complete study of previous hospital records and physician's records is essential.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITY

Family Practice—Board certified or board eligible Family Practitioner needed to join an established group. The group currently consists of a board certified general surgeon and two board certified family physicians. The office facility is a modern, spacious, well equipped and fully staffed practice setting. There is an adjacent 43 bed acute care hospital including 4-CCU beds and an attached 38 bed SNF. The practice setting is in the southern blugrass region in Lincoln County. For further information write Fort Logan Clinic, P.S.C., 126 Portman Avenue, Stanford, Kentucky, 40484 or call Charles E. Crase, M.D. at 606-365-9181 office or 60-365-9707 home.

GENERAL PRACTITIONER—to join in busy office practice. Modern well equipped clinic, good location. Guaranteed income the first two years, above average benefits. Partnership a possibility after two years. Send CV to PHYSICIAN, P. O. Box 835, Greenville, Kentucky 42345.



SPECTRUM EMERGENCY CARE, Inc.

EMERGENCY MEDICINE

Part-time and full-time positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (8-60 hour shifts). For details write or call:

Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214

1-800-848-2938 / 614-457-9761

All inquiries will be kept confidential

**General Leasing
Company of Kentucky**

Professional Transportation Management

**We administer your
physician's lease plan.**

**We lease all makes —
everywhere.**

**GENERAL
LEASING**

121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383



**DIRECTOR OF LABORATORIES
St. Elizabeth Medical Center**

**...Where A Career In Pathology Offers The
Opportunity Of A Lifetime**

St. Elizabeth Medical Center understands your needs. We know that you want a stimulating and challenging environment in which to practice your profession. We have it at St. Elizabeth.

Our Medical Center is a dynamic **596-bed** multi-unit acute care hospital located amid the culture and charm of the **Greater Cincinnati** area. And, dramatic advancements are in the making at Kentucky's largest acute care full-service Medical Center.

Together with the construction of new obstetrics, pediatrics and surgical facilities we will soon add to our comprehensive cardiovascular diagnostic service by offering the first open-heart surgery program in Northern Kentucky.

We are looking for an innovative pathologist to direct a highly qualified team of pathologists and laboratory professionals in our expanding laboratories. A proven track record of administrative experience in a comparable sized institution is a **must**.

If your needs match the challenges we have to offer, we urge you to send your curriculum vitae to:

Paul C. Bellendorf
Administrator
St. Elizabeth Medical Center
401 East 20th St.
Covington, Kentucky 41014

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵ ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY
CONFIRMED BY EXPERIENCE

DALMANE®

flurazepam HCl/Roche

THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights²⁻⁴
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE®
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE®
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]

flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES



See preceding page for references and summary of product information.
Copyright © 1984 by Roche Products Inc. All rights reserved.

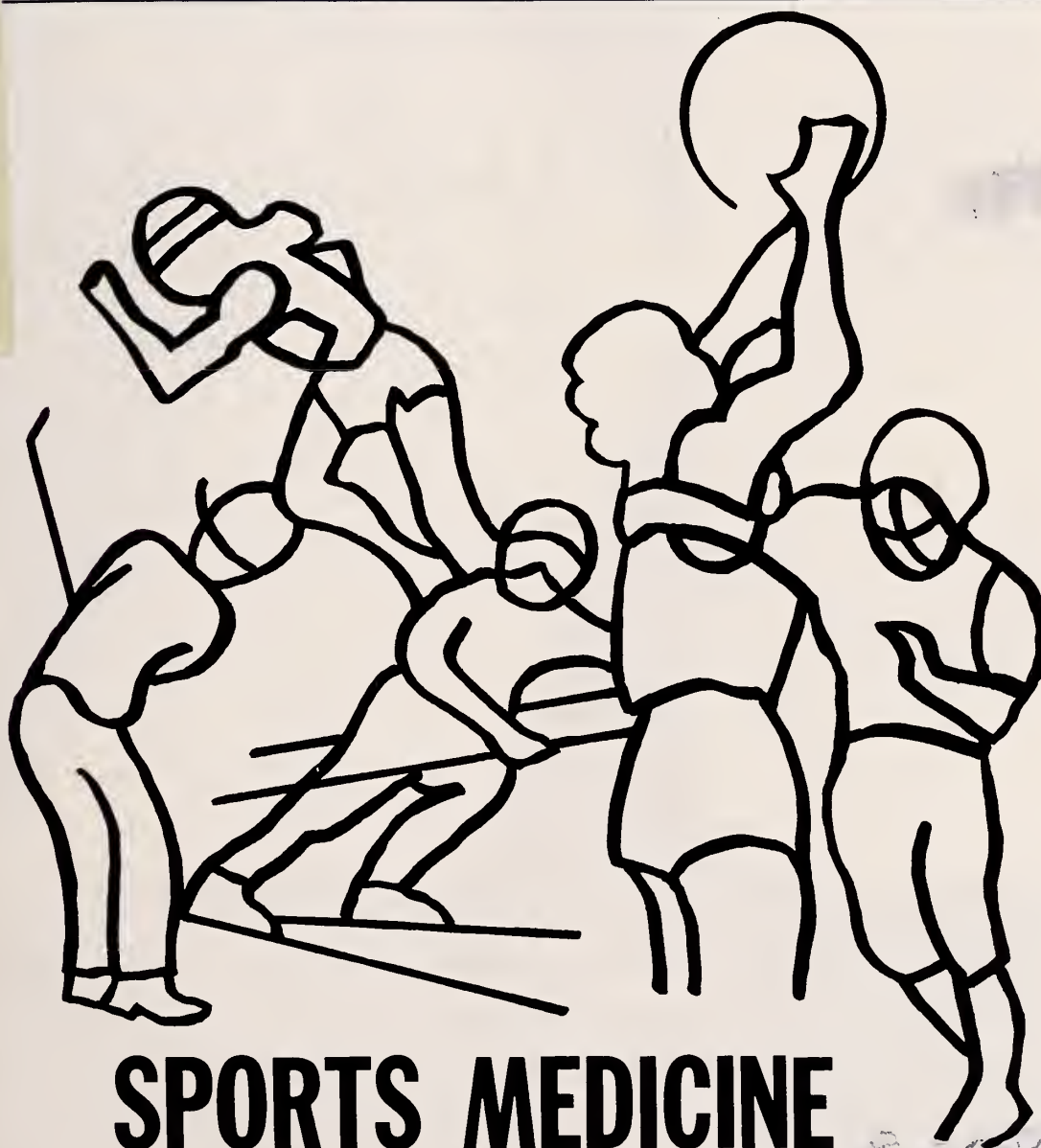
STACKS

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

SUB
Library of
College of Phys. of Phil.
19 South 22nd St.
Philadelphia, PA 19103



SPORTS MEDICINE 1984 KMA ANNUAL MEETING

Program page 399



**as one physician
to another. . .**



**“Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?”**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company • P.O. Box 35880 Louisville, Ky. 40232
TOLL FREE 1-800-292-1858 • Louisville Area 459-3400

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 8

August 1984

SCIENTIFIC

Human Insulin Therapy: The Index Case
Steven B. Leichter, M.D. and Barbara L. Barr, R.N. 367

Spontaneous Pneumothorax
Porter Mayo, M.D. 369

Single Stage Reconstruction of Radiation Injury
of the Chest Wall by a Latissimus Dorsi
Musculocutaneous Flap
Allan Stryker, M.D. 374

SPECIAL ARTICLE

High School Athletic Injuries
*Garner E. Robinson, M.D., Gary B. Wilkerson, A.T.C.
and R. Quin Bailey, M.D.* 383

EDITORIAL

W.A.S.H. 391

SPECIAL FEATURE

KMA Annual Meeting Section 398

REGULAR FEATURES

President's Page 363
Book Reviews 393

Cover by Martha S. Miller

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific; Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign, (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

August 1984

361

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40403 (606) 986-2323	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145.....	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1985
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6113	1984

Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6472	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574	1986
4th.....	THOMAS R. TAYLOR, M.D., 914 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551.....	1986
5th.....	BOB M. DeWEESE, M.D., 530 Andubon Medical Plaza, Louisville 40217 (502) 636-9216	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111.....	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40342 (502) 839-6981.....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3748	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1984
12th.....	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 324-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

AUGUST BUYERS' GUIDE FOR *JOURNAL OF KMA*

Charter Medical	388,389
Classified.....	442
General Leasing Corporation	387
Good Samaritan Hospital	387
Hyatt Regency Lexington	399
KMA Insurance Agency	393,440
KMCO.....	396
KMIC	360
Kentucky Thoracic Society.....	394,395

A.P. Lee Agency, Inc	441
Eli Lilly & Company	390
Louisville Baptist Hospitals.....	381
Medical Protective Company	382
Roche Laboratories	443,444
Smith Kline & French Labs	365
Spectrum Emergency Care.....	441
U.S. Army.....	397
The Upjohn Company.....	366

PRESIDENT'S PAGE



Cognition: The act or process of knowing including both awareness and judgement

The above definition seems to include what all physicians must do in order to learn the art and science of medicine and to practice in their specialty. However, the subject of the cognitive practice of medicine has recently surfaced to become another source of deviseness. As discussed in detail at the American Society of Internal Medicine meeting last year there seems to be a disparity in reimbursement for services. Why should the cardiologist who spends hours trying to treat bradycardia with medications not be reimbursed proportionally to the surgeon who implants a pacemaker in a much less period of time. And yet the surgeon who does implant the pacemaker has to use his cognitive skills developed by years of training and experience. As expected the American College of Surgeons has responded that cognitive skills are not limited to the non-surgical specialties.

At the annual AMA House of Delegates meeting in Chicago this June, five resolutions were introduced from the state delegations of Georgia, Texas, Minnesota, Oregon and Ohio regarding "cognitive services reimbursement."

The resolutions all have similar language:

1. Physicians of all specialties provide both cognitive and procedural services to their patients.
2. Cognitive services can be defined as those services that directly employ the physician's perception, judgment and knowledge to evaluate the patient and to decide the best course of treatment.

3. Technological procedures involve the use of technology and/or manual skills to obtain clinical data or to treat disease.

4. Most existing reimbursement systems provide disproportionately low allowances for such cognitive services as complete histories and physician examinations in comparison to procedural services.

5. Many technological procedures also require considerable cognitive skill and judgment on the part of the physician providing the procedures.

6. The cognitive skill required to assess the need for those procedures are also reimbursed at a disproportionately low level compared to the actual performance of the procedures.

7. This reimbursement discrepancy may contribute to high medical care costs by rewarding physicians for offering tests and procedures, and by penalizing them for spending time with patients and deciding not to order costly procedural services.

8. There is a growing body of opinion and research to support the concept that a third party payment system that appropriately reimburses for cognitive services might help moderate medical care expenditures and facilitate rather than discourage the kind of caring, personalized approach to health desired by most patients and physicians alike.

The resolves of the five were combined into a substitute resolution adopted by the House of Delegates:

Resolved, That the American Medical Association support the concept that third party payors should provide more equitable reimbursement for physicians' services which are solely cognitive in comparison with their procedural services; and be it further

Resolved, The AMA take appropriate action to promote more equitable reimbursement for solely cognitive services with third party payors, business groups and other professional associations; and be it further

Resolved, That a report to the House of Delegates be submitted at the 1984 Interim Meeting.

Just as the AMA strives to represent all members of the federation, Kentucky Medical Association wants to represent all of the physicians in the state and provide

the mechanism for all opinions to be heard and discussed in a fair manner. It is my hope that all specialty groups will feel free to have input into KMA regarding cognitive services or any other potential area of conflict.

Make sure that the delegates who represent you at the Annual Meeting discuss the reports of the KMA committees and the resolutions with you before they leave and then attend the Annual Meeting with your viewpoints.

We look forward to seeing you in Lexington, September 17-20.

Wally O. Montgomery, M.D.
KMA Vice President

Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

In Hypertension* When You Need to Conserve K^+

Remember the Unique Red and White Capsule: Your Assurance of SK&F Quality

Serum K^+ and BUN should be checked periodically (see Warnings and Precautions).



Potassium-Sparing **DYAZIDE®**

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Over 17 Years of Confidence

a product of
SK&F CO.
Carolina, P.R. 00630

The unique
red and white
Dyazide® capsule:
Your assurance of
SK&F quality.



Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

Upjohn

Human Insulin Therapy: The Index Case

STEVEN B. LEICHTER, M.D. AND BARBARA L. BARR, R.N.

A 21-year-old college student at the University of Kentucky became the first American to be treated with human insulin on a routine therapeutic basis. His subsequent course since the first dose of human insulin reflects the possible benefits of this new insulin to the overall population of patients with Type I diabetes mellitus.

Over 1 million Americans with diabetes mellitus require insulin therapy.¹ Until recently, all of these patients were treated with insulins derived from animal sources. Some patients developed clinically significant titers of antibodies against these insulins, and consequently suffered a variety of complications of insulin therapy.² The complications of treatment with animal insulins include: hives and other true allergic reactions (rare); lipoatrophy or lipohypertrophy; or increasing daily insulin requirements, secondary to the generation of "blocking" antibodies (IgG anti-insulin antibodies), which bind circulating insulin and render it bio-unavailable.³⁻⁵

Recently, human insulin, derived from genetically manipulated bacteria, became available for routine clinical use.⁶ The first American to be treated with this material on a routine clinical basis was a Kentuckian. His subsequent clinical course illustrates many important aspects of therapy with human insulin.

Case Report

A 21-year-old college student presented to the Kentucky Diabetes Foundation for regulation of complicated Type I diabetes mellitus of 18 years duration. He had a long history of poor control of hyperglycemia as documented initially by urine glucose determinations, and more recently by capillary glucose measurements. He was taking 80 units of standard lente and 14 units of standard regular beef-pork insulin daily at 7:00 a.m. Physical examination revealed a young man 5 feet, 11

inches tall, weighing 180 pounds, with a blood pressure of 150/96, and mild background retinopathy in both eyes. Initial laboratory studies included: serum glucose, 277 mg/dl; BUN, 13 mg/dl; serum creatinine, 1.1 mg/dl; and normal serum electrolytes. A simultaneous serum C-peptide level was undetectable. Total hemoglobin A1 was 12.0% ($n < 8.5\%$). Anti-insulin antibodies were 52% binding for anti-beef insulin antibodies and 51% binding for anti-pork insulin antibodies ($n < 4\%$ binding for each).

He was treated initially with hydrochlorothiazide, 100 mg., and prazosin, 3 mg. per day, for hypertension, and purified pork insulin, 86 units total daily dose. He increased the frequency of his home glucose monitoring by capillary glucose measurements to four observations daily. Despite these changes in therapy no improvement in control of hyperglycemia occurred, although his blood pressure measured on multiple occasions was well-controlled ($< 140/80$). During the next eight weeks, his daily insulin dose was increased progressively to 104 units (Table 1). This increase still did not yield any improvement in his hyperglycemia. Therefore, he was scheduled for treatment with human insulin.

On December 26, 1982, he became the first American patient to be treated with human insulin on a routine clinical basis. Within 96 hours, his daily insulin requirement had fallen from 104 to 65 units, given as 50 units of human NPH and 15 units of human regular insulin. During the next eight months his daily insulin requirement increased slowly to 74 units, associated with a 10 pound weight gain. Since then, his body weight remained stable at 180 pounds, whereas his hemoglobin A1 level decreased from 12.0% to 8.9% (Table 1).

TABLE I.

Daily Insulin Requirement and Hemoglobin A1-C Levels Before and After Initiation of Human Insulin Therapy in the Index Patient

Insulin Therapy	Duration of Human Insulin Therapy (days)	Daily Insulin Requirement (units)	Hemoglobin A1-C Levels (% of total hemoglobin)
Purified Pork Insulin	-60	94	12.0
	-30	100	12.0
	0	104	12.0
Human Insulin	5	65	---
	45	66	---
	90	70	11.5
	180	78	10.0
	240	74	8.9

Discussion

Insulin resistance is a recognized consequence of the generation of anti-insulin antibodies by therapy with animal (beef or pork) insulins.⁶ Cases have been reported in which patients have required more than 100 (relative insulin resistance) or 200 (absolute insulin resistance) units of insulin per day for adequate control of hyperglycemia.^{7,8} In these instances, insulin resistance was associated with the binding of insulin by "blocking" antibodies, which rendered the insulin bio-unavailable.

Until recently, little could be done to treat this problem. The generation of insulin antibodies was ascribed to treatment with animal insulins and with relatively impure insulins. Approximately three years ago, highly purified beef and highly purified pork insulins were introduced and were effective in some but not all cases of insulin resistance.⁶ This was because some patients generated antibodies to insulin with exposure to either animal insulin, whereas others were sensitized to only one of the two animal insulins. The new availability of human insulin offers another therapeutic alternative for this clinical situation.

The present case illustrates the potential benefits of human insulin in a patient who is unresponsive to a highly-purified animal insulin. Treatment of this patient with human insulin was associated with a rapid reduction in daily insulin requirement of 38.1%. This did not occur when the patient was switched from standard beef-pork insulin (~50 ppm contaminants) to highly purified pork insulin (<1 ppm contaminants). Im-

proved control of hyperglycemia, as judged by total hemoglobin A1 levels, occurred as well (Table 1).

This case also illustrates some of the concerns that should be considered in initiating human insulin therapy. So large a reduction in daily insulin requirement over 72 hours should not be risked in an unsupervised patient. A decrease of this magnitude may not invariably occur, but its potential should appropriately increase the caution of both patient and physician. We suggest regulation with human insulin in a patient previously on conventional insulin only if the patient is carrying out frequent capillary glucose determinations at home under close physician supervision, or is in the hospital. With such large and rapid effects of human insulin on daily insulin requirement, severe insulin-induced hypoglycemia may result.

References 1. Report of the National Diabetes Advisory Board *Diabetes Mellitus - The Continuing Challenge*. U.S. Department of Health and Human Services NIH publication No. 83-2624:7-12, 1983. 2. Davidson MB: *Diabetes Mellitus Diagnosis and Treatment* New York Wiley Medical Publication 1:132-147, 1981. 3. Kahn CR and Rosenthal AS: Immunologic reactions to insulin: insulin allergy, insulin resistance, and the autoimmune insulin syndrome. *Diabetes Care* 2, No. 3:283-295, 1979. 4. Olefsky JM: Insulin resistance and insulin action. *Diabetes* 30, Feb.:148-161, 1981. 5. DePirro R, Fusco A, Spallone L, Magnatta R, and Lauro R: Insulin antibodies prevent insulin-receptor interactions. *Diabetologia* 19:118-122, 1980. 6. Shipp JC, Cunningham RW, Russell RO, and Marble A: Insulin resistance: clinical features, natural course and effects of adrenal steroid treatment. *Medicine* 44:165-168, 1965. 7. Paulsen EP, Courtney JW, and Duckworth WC: Insulin resistance caused by massive degradation of subcutaneous insulin. *Diabetes* 28, July:640-45, 1979. 8. Anderson OO: Clinical significance of anti-insulin-antibodies. *Acta Endocrinologica Supplement* 205 83:231-240, 1976.

From the Kentucky Diabetes Foundation, 120 N. Eagle Creek Dr. Lexington, Kentucky 40509, and Central Baptist Hospital, 1708 Limestone, Lexington, Kentucky 40503.

Spontaneous Pneumothorax

A 28-Year Review

PORTER MAYO, M.D.

Spontaneous pneumothorax occurs most often in young people from the late teens into the early thirties. It is caused by the rupture of a small and usually undetectable subpleural bleb or bulla. Chest radiographs, in the young age group, are apt to appear normal; however, emphysematous bullae or cysts were visible in 50.9% of patients age 40 and over. Of 546 patients experiencing pneumothorax, rest and thoracentesis was the treatment of choice in 54 patients (10%). Closed thoracotomy was performed in 362 patients (66%). Open thoracotomy and pleural abrasion effected in 130 patients (24%). There were three deaths in the entire series, a mortality rate of 0.5%. Pleural abrasion offers a safe and reliable method for treatment of recurrent pneumothorax with minimal morbidity. A decreased male to female ratio was noted, likely reflecting an increased incidence of female smokers.

Spontaneous pneumothorax results from the rupture of blebs and bullae on the visceral pleural surface and the escape of air into the pleural space. Mechanisms of the genesis of pneumothorax have been proposed by several authors.¹⁻⁶ The most prevalent opinions include the congenital theory, the disturbance of colateral ventilation and inflammation of the bronchioles together with progressive destruction of the alveolar walls predisposing to rupture of the structurally weak areas of the pleura. Ohata and Suzuki⁷ emphasize the possibility of air leaking through the walls of the bulla into the pleural space at a given level of pressure and suggest that a major role in the pathogenesis of spontaneous pneumothorax may be played by the sloughing of mesothelial cells. Of the three types of emphysematous bullae, the Reid² type 1 and 2 were most often associated with spontaneous pneumothorax. Type 1, characterized by bleb formation, shows a marked absence of mesothelial cells; whereas, type 2, broad-necked bulla, and type 3, giant bulla, do not. Electron microscopy by Ohata and Suzuki has demonstrated that

direct communication between the bullae and the underlying alveolar area exists in each case.

Most patients experiencing spontaneous pneumothorax do not have diffuse emphysema. Pressure placed on the lungs by vigorous exercise plays no significant role; in fact, the majority of pneumothoraces occur at rest.⁸ Once recovered from a pneumothorax, customary physical activity should be resumed.

Spontaneous pneumothorax most often occurs after the adolescent growth spurt and peaks among persons 25 to 35-years-old. (Table I) The sex difference among patients, approximately four times as frequent in males as in females, has long been noted and seems to be explained on the basis of a gradient of an increased risk with greater height.⁹⁻¹² The studies of Vawter *et al*¹⁰ and Forgacs¹³ theorize that the long, narrow chest, more characteristic of men than of women, renders the apex of the lungs of men and of tall, thin individuals more vulnerable to gravitational stress than those of women and shorter persons, accounting for the greater incidence among them. It is believed that expansive pressures are proportional to lung height and that volume strain on the apical parenchyma increases disproportionately to that at the bases as lung height increases, leading to the development of apical blebs.

Diagnosis

The most common presenting symptom is chest pain, mild to moderately severe, that begins without prodromal symptoms in a previously healthy person.¹⁴ Many patients have an associated dyspnea accentuated by anxiety. Fifteen percent of the patients under the age of 40 may have no symptoms; however, patients over the age of 40 almost always experience definite and more severe symptoms.¹⁵ The degree of dyspnea is often out of proportion to the percentage of lung collapse in those patients having clinically significant emphysema and bronchitis and chest radiographs showing blebs and bullae. The extent of lung collapse is more apt to be reflected in the degree of dyspnea than in the severity of the pain.

TABLE I

AGE DISTRIBUTION (546 PATIENTS)

YEARS	# OF PATIENTS	PERCENT
1 day-9	18	3.0
10-19	55	10.0
20-29	156	29.0
30-39	122	22.0
40-49	71	13.0
50-59	52	10.0
60-69	29	5.0
70-79	30	5.0
80-89	13	2.0

Physical examination typically demonstrates distant breath sounds, decreased tactile fremitus, and hyperresonance over the pneumothorax. In the presence of a tension pneumothorax, the trachea and heart may be shifted to the opposite side. The diagnosis of spontaneous pneumothorax in the emphysematous patient is more difficult, particularly among those patients having huge bullae.^{16,17}

The diagnosis of spontaneous pneumothorax should be confirmed by chest roentgenograms in every case. A chest radiograph provides an estimate of the extent of pulmonary collapse, the presence and location of pleural effusions, and helps to differentiate a pneumothorax from the large, thin-walled, air-containing cysts and bullae. Inspiratory and expiratory radiographs may prove beneficial when the visceral and pleural edge cannot be outlined with certainty. A lateral decubitus film may help to sharpen the outline of pneumothorax by shifting the pneumothorax from the apex in the upright film to the lateral chest wall in the decubitus film where the view of the visceral pleural edge is less impeded by the bony structures.¹⁸

Although spontaneous pneumothorax is most prevalent among men 20 to 40-years-old, there are two other distinct age groups.¹⁹ The first group is the newborn when spontaneous pneumothorax is more common than at any other time in childhood and most often associated with hyaline membrane disease, forceful manual resuscitation, and aspiration of meconium-stained amniotic fluid.²⁰⁻²² The second group comprises those patients age 40 and over who develop spontaneous pneumothorax complicating severe chronic obstructive lung disease.^{11,15,23-27}

The immediate aims of treatment are to rapidly and completely re-expand the lung and to prevent recurrence of the pneumothorax by fusion of the visceral to the parietal pleura to obliterate the pleural space.²⁸⁻³³

TABLE II

INDICATIONS FOR OPEN THORACOTOMY

1. Recurrent pneumothoraces.
2. Persisting air leak with tube thoracostomy.
3. Massive hemopneumothorax.
4. Simultaneous bilateral pneumothoraces.
5. Giant bulla.
6. Chronic pneumothorax with trapped lung.
7. Single episode of pneumothorax in persons with high risk avocations and occupations.

These goals have led to a significant shift toward more aggressive efforts to realize rapid and permanent reexpansion.

Materials & Methods

During the 28-year period (1955-1982), 546 patients were treated for spontaneous pneumothorax. Three hundred and thirty-six patients were under the age of 40 and 210 patients age 40 and over. Twelve of the patients were newborns. Males exceeded females, 392 to 153, a ratio of 2.66:1. Eighty percent of the patients under the age of 40 were smokers; 96% of the patients age 40 and over were smokers. Twenty-eight patients had significant intrapleural bleeding, an average blood loss of 1,380 cc. Twelve patients had simultaneous bilateral pneumothoraces. Tension pneumothorax developed in 30 patients.

Rest and thoracentesis was the treatment of choice in 54 patients (10%). Intercostal tube insertion was performed in 362 patients (66%). Open thoracotomy and pleural abrasion was utilized in 130 patients (24%). There were three deaths in the entire series, a mortality rate of 0.5%. One neonate died of cardiac arrest; one adult died of a myocardial infarction; and a second adult of complications of chronic obstructive lung disease.

Discussion

The treatment of spontaneous pneumothorax is influenced by (1) the extent of the lung collapse, (2) the duration of the pneumothorax, (3) the number of previous episodes of collapse, (4) a large or persistent air leak, (5) associated intrapleural bleeding, (6) age, and (7) the presence of underlying parenchymal disease, such as infection and emphysema.^{19,34} One or a combination of factors may dictate the selection of therapy for an individual patient. Bilateral simultaneous pneumothoraces constitute a grave emergency best treated initially by closed thoracotomy on one side and open

thoracotomy and pleurodesis on the opposite side to prevent a subsequent and possibly fatal occurrence.^{35,36}

Recurrent spontaneous pneumothorax concurrent with menstruation has been named "catamenial pneumothorax."³⁷⁻⁴² The pneumothorax occurs almost exclusively on the right as it did in our two patients, one of which was the third such reported case.⁴³ Thoracotomy and pleurodesis has been effective in preventing such a pneumothorax.

Other manifestations of spontaneous pneumothorax include (1) associated hemothorax in 4% of patients,⁴⁴⁻⁴⁶ (2) occult carcinoma of the lung presenting as spontaneous pneumothorax (< 1%),⁴⁷⁻⁵¹ (3) spontaneous pneumothorax under general anesthesia (< 1%)⁵² and (4) in the newborn (0.05-3%).^{20,52-54}

Conservative Therapy

The patient with spontaneous pneumothorax should be hospitalized for several days to make certain the air leak stops. For the initial pneumothorax with a collapse of less than 20%, the patient may be managed conservatively. With the exception of the neonate, where thoracentesis may be life saving, thoracentesis is now rarely used. Even without treatment, the gas eventually is resorbed into the blood stream. Most pneumothoraces are not progressive; and since the gas is resorbed, observation and radiographic confirmation of complete lung expansion are adequate. Progressive increase in activity is recommended; bed rest is seldom necessary.

Tube Thoracostomy

Those patients experiencing an initial pneumothorax greater than 20% and those patients having a second occurrence on the same side should be treated by the introduction of an indwelling thoracostomy tube. The tube will incite sufficient inflammation by irritation of the visceral and parietal pleurae to produce pleural symphysis, lessening the likelihood of recurrent pneumothorax. Tube thoracostomy is performed under local anesthesia. A large trocar guided catheter, No. 28 to 30 French, can readily be inserted into the second anterior interspace near the mid-clavicular line in the adult and connected to a simple underwater seal system. Ordinarily, 15-25 cm. of water suction should be applied to the underwater seal system, calibrated to facilitate lung expansion. Too great a pressure will serve only to keep the leak open and delay sealing. It is essential that the diameter of the thoracostomy tube be larger than the air leak from the lung; if not, it will act to obstruct the escape of air from the pleural cavity and

likely cause a tension pneumothorax. When a pleural effusion complicates the pneumothorax, two chest tubes may be used advantageously, one at the apex to capture the escaping air and the second at the base to effectively eliminate the collecting fluid. When the air leak stops and radiographs show the lung to be fully expanded, the chest tube can then be clamped and, if no lung collapse is noted, the tube can be removed. If a chest radiograph taken 12-24 hours after removal of the tube shows good lung expansion, the patient may be discharged. Tube thoracostomy lessens the likelihood of recurrence of pneumothorax and unhesitatingly should be used if there is uncertainty about the size of the air leak or in a progressive pulmonary collapse.

Open Thoracotomy

One hundred and thirty-eight open thoracotomies and pleural fusions of the visceral and parietal pleurae were performed in 130 patients. Eight patients had bilateral procedures. Seventy-three patients were under the age of 40 and 57 patients were over the age of 40. Eighty percent of the patients age 40 and over had chronic obstructive airway disease; 50.9% had significant emphysematous blebs or bullae.¹⁵ Of the 138 thoracotomies, there was one partial recurrence of pneumothorax. The one post-thoracotomy death that occurred was in a patient age 57 having cardiopulmonary complications.

Indications for open thoracotomy are listed in Table II. Recurrent pneumothorax is the most common indication for open thoracotomy. A third pneumothorax affecting the same side is generally accepted as an absolute indication; however, some surgeons proceed with open thoracotomy when only two pneumothoraces have occurred based on the high incidence of recurrence, namely 10-60%.

Tube failure is the second leading indicator for open thoracotomy. When an air leak persists and in the absence of lung re-expansion in the presence of a functioning thoracostomy tube for five to seven days, open thoracotomy is advised. A massive hemothorax constitutes the third most frequent reason to undertake open thoracostomy. Continued bleeding and shock unresponsive to blood volume replacement and other supportive measures require control of the bleeding site. Re-expansion of the lung prevents later complications, such as an infected pleural cavity and the possibility of a fibrothorax.

Other considerations for open thoracotomy include instances when pneumothoraces have occurred on both

sides to reduce the possibility of simultaneous bilateral lung collapse, radiographic evidence of emphysematous cysts or bullae which may not only rupture but act as space-occupying lesions compressing and obstructing functioning lung and causing respiratory distress, the infrequent trapping of an unexpanded lung by a thick peel of fibrin thwarting lung expansion and inviting pleural infection and empyema, and after a single pneumothorax in persons with high risk avocations or occupations, such as scuba divers or aircraft pilots.

The instillation of an irritant substance into the pleural cavity, such as talc, tetracycline, and glucose to promote pleurodesis all too often results in extreme pain, uneven distribution, and high failure rate. Chemical pleurodesis alone is not a recommended mode of therapy.^{34,55,56}

Resection of the offending blebs or bullae and mechanical pleurodesis was performed in 124 patients. Pleurodesis was effected by scrubbing the visceral and parietal pleura with gauze creating an inflammatory response sufficient to cause fusion of the pleura. Six patients were treated by open thoracotomy and parietal pleurectomy. Either procedure effectively obliterates the pleural space and so decreases the possibility of recurrent pneumothorax. Mechanical pleurodesis is easier and has fewer complications than does pleurectomy; therefore, it is the procedure of choice. Lung function is not impaired by the thoracotomy and pleurodesis.³² Pulmonary stapling has been used to great advantage during the past 15 years, permitting resection of blebs and bullae without fear of persisting air leaks so common when sutures are used to close the margins of the fragile tissue.

Spontaneous pneumothorax in the apparently healthy individual, when adequately treated, has very little risk. Properly managed, most cases, even those with complications, have a successful outcome. Pleural abrasion has become the mainstay of surgical therapy for treatment of recurrent pneumothorax.

References 1. Tuellar EE, Crise NR, Belton JC, McLaughlin Jr RF: Idiopathic spontaneous pneumothorax: electron microscopic study. *Chest* 71:419-421, 1977. 2. Reid L: The pathology of emphysema. London: Lloyd-Luke Ltd, 1967. 3. Masshoff W, Höfer W: Zur Pathologie des sog idiopathischen spontanpneumothorax. *Deutsch Med Wschr* 16:801-805, 1973. 4. Miller WS: The lung. 2nd ed. Springfield, Ill: CC Thomas, 1947. 5. Bernhard WF, Malcolm JA, Berry RW, Wylie RH: A study of the pathogenesis and management of spontaneous pneumothorax. *Dis Chest* 42:403-412, 1962. 6. Sattler A: Zum Durchtritt von luft durch die permeabel gewordene Pleura visceralis und dem hierdurch konstituierten Spontan (aperforativen)-pneumothorax. *Beiträge zur Klinik der Tuber-*

kulose 120:270-376, 1959. 7. Ohata M, Suzuki H: Pathogenesis of spontaneous pneumothorax: with special reference to the ultrastructure of emphysematous bullae. *Chest* 77:771-776, 1980. 8. Mayo P: Spontaneous pneumothorax. results of pulmonary resection. *J Ky Med Assoc* 55:331-335, 1957. 9. Peters RM, Peters BA, Benirschke SK, Friedman PJ: Chest dimensions in young adults with spontaneous pneumothorax. *Ann Thor Surg* 25:193-196, 1978. 10. Vawter DL, Matthews FL, West JB: Effect of shape and size of lung and chest wall on stresses in the lung. *J Appl Physiol* 39:9-17, 1975. 11. Dines DE, Clagett OT, Payne WS: Spontaneous pneumothorax in emphysema. *Mayo Clin Proc* 45:481-487, 1970. 12. Melton LJ, Hepper NGC, Offord KP: Influence of height on the risk of spontaneous pneumothorax. *Mayo Clin Proc* 56:678-682, 1981. 13. Forgacs P: Stature in simple pneumothorax. *Guy Hosp Rep* 118:199-204, 1969. 14. Klassen KP, Meckstroth CV: Treatment of spontaneous pneumothorax. *JAMA* 182:1-5, 1962. 15. Mayo P, Long GA, McElvein RB: Diagnosis and treatment of spontaneous pneumothorax in patients aged 40 and over. *J Ky Med Assoc* 66:976, 977, & 1008, 1968. 16. Sabiston DC, Spencer FC: Gibbon's surgery of the chest. Third ed. WB Saunders Co., Philadelphia 1976, 374-376. 17. Hinshaw HC, Murray JF: Diseases of the chest. Fourth ed. WB Saunders Co., Philadelphia 1980, 905-907. 18. Guenter CA, Welch MH: Pulmonary medicine. JB Lippincott Co., Philadelphia 1977, 458-462. 19. Adler RH: Spontaneous pneumothorax. *Hosp Med* 1:3-6, 1965. 20. Mayo P, Saha SP: Spontaneous pneumothorax in the newborn. *Am Surg* 49:192-195, 1983. 21. Steier M, Ching N, Roberts EB et al: Pneumothorax complicating continuous ventilatory support. *J Thorac Cardiovasc Surg* 67:17-23, 1974. 22. Steier M, Ching N, Roberts EB et al: Pneumothorax complicating continuous ventilatory support. *J Thorac Cardiovasc Surg* 67:17-23, 1974 (discussion). 23. George RB, Herbert SJ, Shames JM, Ellithorpe DB, Weill H, Ziskind MM: Pneumothorax complicating pulmonary emphysema. *JAMA* 234:389-393, 1975. 24. DeVries WB, Wolfe WC: The management of spontaneous pneumothorax and bullous emphysema. *Surg Clin North Am* 60:851-866, 1980. 25. Weissberg D: Bullous emphysema: Guidelines for management and results of operative treatment. *Bronchopneumonologie* 30:198-201, 1980. 26. Harris J: Severe bullous emphysema. Successful surgical management despite poor preoperative blood gas levels and marked pulmonary hypertension. *Chest* 70:658-660, 1976. 27. Billig DM: Surgery for bullous emphysema. Editorial. *Chest* 70:572-573, 1976. 28. Morrison JB: Treatment of spontaneous pneumothorax. *Lancet* 2 (8248):666-667, 1981. 29. Brooks JW: Open thoracotomy in the management of spontaneous pneumothorax. *Ann Surg* 177:798-805, 1973. 30. Clark TA, Hutchison DE, Deane RM, Fitchett VH: Spontaneous pneumothorax. *Am J Surg* 124:728-731, 1972. 31. Getz SB Jr, Beasley WE: Spontaneous pneumothorax. *Am J Surg* 145:823-827, 1983. 32. Hopkirk JAC, Pullen MJ, Fraser JR: Pleurodesis: the results of treatment for spontaneous pneumothorax in the Royal Air Force. *Aviat Space Environ Med* 54:158-160, 1983. 33. Welch J, Lennox SC: Treatment of spontaneous pneumothorax. *Nurs Times* 75:324-326, 1979. 34. Glenn WWL: Thoracic and Cardiovascular Surgery. 4th Ed. Appleton-Century-Crofton., Norwalk, Connecticut 1983, 148-150. 35. Saadi E, Riberi A, Massullo E: Bilateral spontaneous pneumothorax. *Dis Chest* 44:104-105, 1963. 36. Adkins PC, Smyth NP: Bilateral simultaneous spontaneous pneumothorax. *Dis Chest* 37:702-704, 1960. 37. Maurer ER, Schaal JA, Mendez FL Jr: Chronic recurring spontaneous pneumothorax due to endometriosis of the diaphragm. *JAMA* 168:2013-2014, 1958. 38. Kovarik JL, Toll GD: Thoracic endometriosis with recurrent spontaneous pneumothorax. *JAMA* 196:595-597, 1966. 39. Smith SB, Andersen CA: Spontaneous pneumothorax. Special considerations. *Am Surg* 19:245-248, 1983. 40. Rossi NP, Goplerud CP: Recurrent catamenial pneumothorax. *Arch Surg* 109:173-176, 1974. 41. Shearen RPN,

SPONTANEOUS PNEUMOTHORAX—Mayo

Hepper NGG, Payne WS: Recurrent spontaneous pneumothorax concurrent with menses. *Mayo Clin Proc* 49:98–101, 1974. **42.** Lillington GA, Mitchell SP, Wood GA: Catamenial pneumothorax. *JAMA* 219:1328–1332, 1972. **43.** Mayo P: Recurrent spontaneous pneumothorax concomitant with menstruation. *J Thorac Cardiovasc Surg* 46:415–417, 1963. **44.** Morgenstern DA, Davidson JT, Chandler JJ: Spontaneous bloody pneumothorax: case report and literature review. *J Med Soc NJ* 79:583–584, 1982. **45.** Mayo P: Spontaneous hemopneumothorax. *Dis Chest* 40:539–542, 1961. **46.** Promisloff RA, Friehling J: Spontaneous hemothorax without pneumothorax. *Clin Notes Respir Dis* 21:13–14, 1982. **47.** Lundgren R, Stjernberg N: Spontaneous pneumothorax as first symptom in bronchial carcinoma. *Acta Med Scand* 207:329–330, 1980. **48.** Laurens RG Jr, Pine JR, Honig EG: Spontaneous pneumothorax in primary cavitating lung carcinoma. *Radiology* 146:295–297, 1983. **49.** Hyde L, Hyde CI: Rare occurrence of simultaneous pneumothorax and lung cancer. *JAMA* 239:1421, 1978. **50.** Watt AG: Occult carcinoma of the lung presenting as spontaneous pneumothorax. *Med J Aust* 2:277–278, 1978. **51.** Dines DE, Cortese DA, Brennon MD, Hahn RG, Payne WS: Malignant pulmonary neoplasms predisposing to spontaneous pneumothorax. *Mayo Clin Proc* 48:541–544, 1973.

52. Mayo P, Saha SP, McElvein RB: Spontaneous pneumothorax under anesthesia. *Ala J Med Sci* 20:84–85, 1983. **53.** Boer HR, Andrews BF: Spontaneous pneumothorax in the neonate. *South Med J* 70:841–846, 1977. **54.** Norton LE, Dismaid VJ, Zumwalt RE: Spontaneous pneumothorax in the newborn: a report of two fatalities. *J Forensic Sci* 23:508–510, 1978. **55.** Macoviak JA, Stephenson LW, Ochs R, Edmunds LH Jr: Tetracycline pleurodesis during active pulmonary-pleural air leak for prevention of pneumothorax. *Chest* 81:78–81, 1982. **56.** Pecora DV: Chemical pleurodesis. Letter to the editor. *Chest* 82:514, 1982.

Presented at the Kentucky Surgical Society Meeting, Lexington, Kentucky, May, 1983.

Single Stage Reconstruction of Radiation Injury of the Chest Wall by a Latissimus Dorsi Musculocutaneous Flap

ALLAN STRYKER, M.D.

The purpose of this paper is to give a brief overview of the biological and surgical aspects of the complications of radiation effects on tissue such as may occur in radiation therapy. A case is reported of a chronic ulcer of the chest wall following a modified radical mastectomy and the surgical reconstruction which was undertaken to close the wound of excision with a latissimus dorsi musculocutaneous flap. Pathogenesis of radiation injury involves damage to the cell possibly by ionization of key molecules of genetic material. In the dermis, a thickening of the intima of small arterioles may develop, resulting in obliterative endarteritis. The tissue is atrophic and fibrotic, vascularity is decreased which inhibits local defenses to infection and inhibits ability to heal. Dysplastic cells may form and ultimately may degenerate into malignancy. Principles of treatment include control of infection as confirmed by quantitative cultures of biopsied tissue, adequate excision to normal tissue if possible, with systemic antibiotic protection in the peri-operative period, and coverage with a skin graft or flap. For extensive wounds, flap coverage from a distant site is preferable if not mandatory, since it brings in healthy tissue with a rich blood supply to help eliminate any residual infection, provides adequate coverage of exposed vital structures, and promotes more secure healing to tissue that may still contain some radiation damage. The latissimus dorsi musculocutaneous flap has by now played a major role in reconstruction of such chest wall defects and may still be reliably used even if its dominant vascular pedicle has been ligated pre-

viously at the time of the radical mastectomy's axillary dissection. The flap may still survive on collateral vessels, heal without complication and maintain satisfactory coverage.

In 1895, Wilhelm Roentgen discovered a "new kind of ray," labeled x-ray because its characteristics were unknown, which was able to penetrate solid matter and expose photographic plates.¹ The discovery offered a therapeutic modality which has cured thousands. However, like other potent agents, its use may be attended by serious side effects. The first cases of acute radiation dermatitis were reported within a year. In 1902, the effect of chronic exposure was first noted as skin cancer on the hand of a technician.

Today, a high degree of protection and awareness on the part of those likely to be exposed is practiced. There are still several situations in which the effects of radiation require the care provided by reconstructive surgeons.

This article will be concerned with the biological and surgical aspects of the complications of radiation therapy as exemplified by the following case.

Case History

The patient is a 67-year-old white woman who had a left simple mastectomy in 1969 for infiltrating ductal carcinoma of the left breast. No lymph nodes in the specimen were identified by the pathologist. She received a total dose of 4,000 rads of postoperative radiation to the left anterior and lateral chest wall. Since that time, there was never any evidence of recurrence of tumor. However, in July, 1981, she developed a pathologic fracture of the anterior portion of the left fourth rib which was biopsied and diagnosed as is-

chemic necrosis of bone. No tumor was found. Following wound closure, the overlying soft tissue failed to heal, leaving an open fibrotic wound of the anterior chest wall draining serous fluid and extending down to rib, with undermining, but without apparent communication with the thoracic cavity. Cultures of the tissue and the draining fluid grew only staph epidermidis. There were radiation changes of almost all the anterior and lateral chest wall. She appeared to have a functional although atrophic latissimus dorsi muscle on the left.

The first priority in the management of this wound was to again rule out the presence of tumor before undertaking any extensive reconstructive procedures. At operation on September 29, 1981, the entire anterior portion of the left fourth rib was removed rather than just debriding the bone. Removal of the rib served as a more adequate biopsy and also served to remove all the nonviable bone which might be acting as a foreign body perpetuating drainage and preventing healing. A block of tissue extending the full thickness of the chest wall containing the wound in the center and extending as widely as necessary to remove the undermined area, and also as much of the surrounding radiated tissue as possible, was excised, taking the underlying rib with it. Frozen section examination reported no tumor in several selected areas of the specimen. The wound was considered to be free of tumor. It measured 15 × 16 cm. in diameter. Pericardium and pleural membrane were exposed.

As the latissimus dorsi musculocutaneous flap was being incised, a pulsating artery was felt on the deep surface in the area of the thoracodorsal neurovascular pedicle. Expecting that the flap had a sufficient vascular pedicle, the flap was fully elevated with a cutaneous island measuring 11 × 22 cm. on the muscle which extended a few centimeters further in width beyond the skin island. The remaining skin bridge of radiation-damaged tissue between the excisional wound of the anterior chest and the flap's donor wound on the back was excised and the flap was transposed directly to the defect and sutured to the wound in layers. The donor wound on the back was closed by direct approximation. The flap remained healthy in its new position, and healing to the adjacent radiated chest wall tissue was uncomplicated. Patient was given a systemic antibiotic effective against staphylococcus pre- and post-operatively. The flap has now provided satisfactory coverage with no significant flail, and without signs of infection for over 32 months.



Fig. 1: Chronic ulcer of radiation scarred left chest wall.

Pathogenesis of Radiation Injury

Ionizing radiation damages tissue in a unique way unlike mechanical, thermal or chemical injury, and it is not really accurate to label a radiation injury a "burn."² The precise mechanism of injury following ionizing radiation is not clear. The possibilities include damage to enzyme systems of ions formed in the cells, and injury to genetic and metabolic patterns by the ionization of key molecules in the cell. The resulting damage to the cell is determined by the relative importance of the destroyed molecules to the function of the cell. Biologically significant damage is that which occurs to deoxyribonucleic acid (DNA). DNA is sensitive to ionizing radiation. Most of this damage can be repaired, and enzymatic processes may continue. However, genetic information is lost, and the cell may lose its ability to replicate, or if it still can replicate, abnormal cells may be produced from that point on. The ability of tissue to repair itself after radiation injury is related to the population of remaining uninjured cells. In the treatment of tumors by radiation, the surrounding normal cells are more numerous than the tumor cells, and upon cell reproduction they are able to repopulate the area, even though some of them have been destroyed in the same random fashion as the tumor cells. Thus healing may occur. If this were not the case, therapeutic radiation of tumors would result in a residual open wound in all cases as the tumor disappeared.



Fig. 2: Surgical wound with exposed pleura and pericardium, exposed ribs and intercostal muscles minus the resected anterior portion of the fourth rib.

The capacity of radiation to penetrate living tissue depends on frequency and wavelength. The shortest waves in the electromagnetic spectrum (x-rays and gamma rays) are capable of significantly penetrating and ionizing molecules inside living cells. The shorter the wavelength, the greater the energy and penetrating power of the rays. The ionizing effect is cumulative over the lifetime of the individual. "Soft" x-rays are of longer wavelength and have been used in treating dermatological disorders. The additive effect from these longer x-rays may be harmful to the skin. The "hard" x-rays are of shorter wavelength and are therefore more penetrating. Lower voltage x-ray machines always emanate a mixture of soft and hard radiation. Thin metal plates are used to filter out the longer x-rays from the radiation beam. This allows the shorter x-rays to ionize at deeper levels without the damaging absorption at skin levels.

Acute Radiation Injury

The acute response to radiation is most commonly seen in skin and tissues undergoing treatment for malignant disease. Unlike the thermal burn, the effects of radiation injury are not felt immediately. Manifest injury from x-rays may take as long as 14 days to appear. The acute phase of radiation injury to the skin may result in moist desquamation or incomplete destruction of the epithelium. In time, the desquamation heals by reepithelialization. If ionization of the molecules in the



Fig. 3: Latissimus dorsi musculocutaneous flap fully elevated on back and ready for transposition to excisional wound on the anterior chest.

cells having been radiated causes enough cells to die from irreparable damage to cellular metabolism and mitosis, tissue necrosis and an ulcer may develop. The more penetrating radiation now achieved with super-voltage and appropriate filtration spares the skin from these cumulative effects caused by the longer wavelengths and therefore the more superficially absorbed wavelengths of ionizing radiation.

Chronic Radiation Injury

Chronic radiodermatitis may be expressed usually from five to 20 years after either a single exposure or repeated exposures. Chronic radiodermatitis is characterized by gross atrophy of the skin and its appendages. The skin becomes scaly, scarred, telangiectatic, and eczematoid in appearance. Cracks and fissures appear. Injuries in the epidermis allow ready access of bacteria, and infection and ulceration are frequently problems that go hand in hand. The impairment of vascularity hinders normal reparative processes and the wounds are indolent. Radiation damage to tissue also inhibits wound healing by decreasing the proliferation of fibroblasts and by inhibiting wound contraction. Though painstaking bandaging and topical care may bring about some degree of healing of these ulcers, they frequently recur in this poor quality tissue.

Malignant change is the ultimate expression of radiation injury. Successive generations of cells initially



Fig. 4: Cutaneous portion of the musculocutaneous flap.

altered by the ionizing property of radiation may become frankly malignant. Squamous cell carcinomas, basal cell carcinomas, and sarcomas may appear. An area of ulceration or unusual keratinizing proliferation in an area of radiodermatitis should be biopsied. Such malignant degeneration generally develops at least five years after radiation injury with many instances of malignancy occurring as much as 20-30 years later.

Histopathological examination of radiated skin will show loss of the normal interface of epidermis and dermis (loss of rete pegs), atrophy of the epidermis, atrophy or absence of the dermal appendages, and hyperkeratosis. In the dermis, a thickening of the intima of small arterioles may be seen. The result is obliterative endarteritis which invites thrombosis. An analysis of the histopathological changes in radiation injury is easily related to the clinical problem. The tissue is atrophic and fibrotic. Vascularity is decreased which inhibits local defenses to infection and inhibits ability to heal. Bizarre dysplastic cells are seen simulating malignancy.

Treatment

In the care of chronic radiodermatitis, it should be realized that this is an irreversible process. Medical treatment includes ointments to keep the damaged skin soft and lubricated. Even so, recurring patches of hyperkeratosis and small ulcerations will appear. Markedly proliferative patches should be excised because of



Fig. 5: Redundancy of healed flap on chest wall allows elevation of arm without tension.

the possibility of early malignancy. Trauma and additional exposure to radiation in the form of sunlight should be avoided. Regular follow-up should be maintained for many years for patients with radiation changes of the skin.

When ulceration occurs, a cycle of secondary infection, necrosis, and more extensive ulceration may be set in motion. This ischemic wound is isolated from the circulation and, therefore, from systemically administered antibiotics. The wound should be treated like a burn wound with topical antibacterial agents to achieve control of infection. The effectiveness of such antibiotics can be confirmed by quantitative cultures of biopsied tissue showing less than 10^5 organisms per gram of tissue.³

With the bacterial population being reported at less than this level, definitive surgery is carried out in the subacute phase. The wound is excised and closed with a split-thickness skin graft which may be sufficient coverage unless the wound is deep enough to expose bare cortical bone, tendon, cartilage or major vessels and nerves, in which case flap coverage will be necessary. Systemic antibiotics are given just prior to, during and 24-48 hours after surgery, not so much to clean out the chronic wound, but to protect the uninvolved tissue in the area of the excision when new tissue planes and vessels will be opened with the operation. Because of diminished tissue resistance to infection, fewer bacteria than usual may be able to cause infection where it

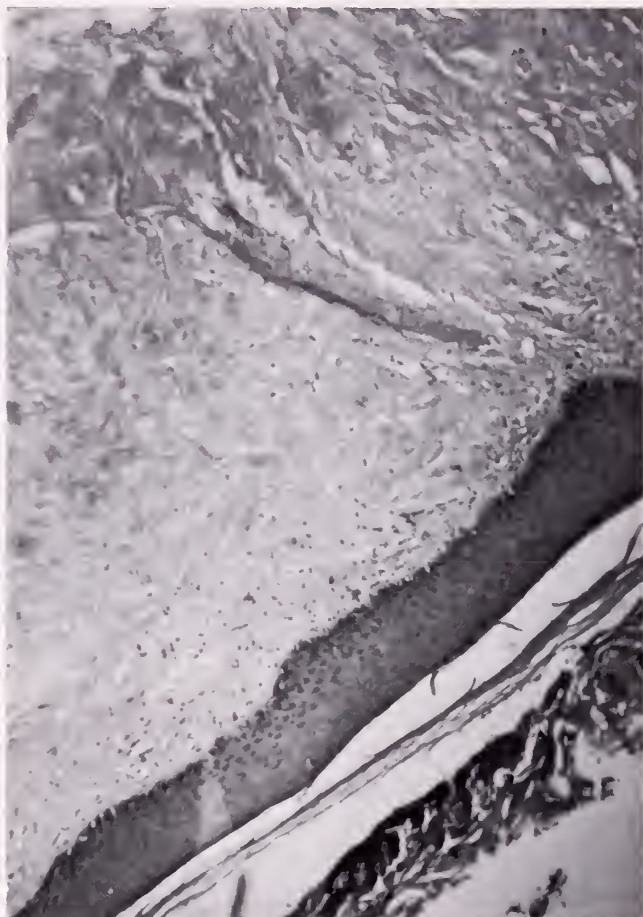


Fig. 6: Slide showing histological changes of chronic radiation dermatitis ($\times 40$, hematoxyline and eosin stain). There is atrophy of the epidermis, loss of rete pegs, fibrosis of the dermis and loss of adnexal structures.

would otherwise not occur. Therefore, systemic antibiotics are indicated when operating in radiated tissue even if the bacterial count is less than 10^5 organisms per gram.³

When using a skin flap, nonradiated tissue should be used, or the flap may infarct. Distant flaps are indicated when tissue adjacent to the wound is involved in radiation injury. Excision of the ulcer should be back to normal tissue, if possible. Usually resection of as much of the original field of radiation as possible is indicated. A distant flap of healthy tissue, whether skin, muscle, or musculocutaneous, will bring in a better blood supply to help eliminate the low-grade infection that may remain in the wound beneath the flap.

Septic osteoradionecrosis or radiation osteitis is a problem usually seen involving the mandible in head and neck cancer patients treated by radiation, but it can also involve rib in radiated chest wall. Changes in vascularity appear to be most important in its devel-

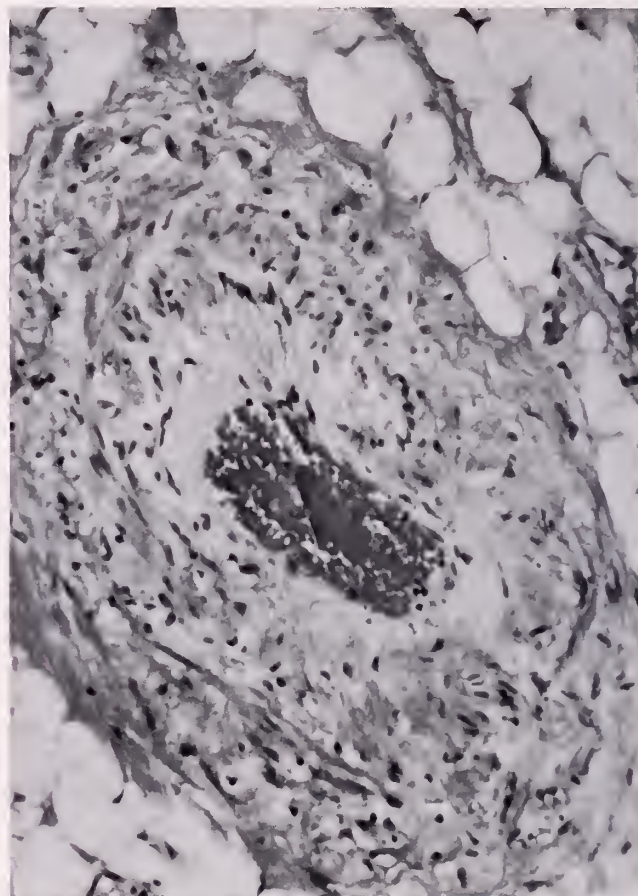


Fig. 7: Slide showing radiation induced changes in microvasculature ($\times 100$, hematoxylin and eosin stain) showing hypertrophy of the media and intima with resulting narrowing of the vessel lumen.

opment. When the bone is septic, the best management is excision of all nonviable bone. Subsequent replacement with bone grafts is rarely successful because of the fibrosis and ischemic changes in the soft tissue that must invest and support the bone graft. Coverage of segments of exposed and debrided bone with healthy blood-bearing tissue may permit salvage, if the remaining bone is not infected.

Reconstruction

The latissimus dorsi musculocutaneous flap has played a major role in reconstruction of the female breast⁴⁻⁶ and chest wall.⁷⁻⁹ Like many other surface muscles of the body, the skin overlying it gets its blood supply from the same vessel that supplies blood to the muscle, via multiple small perpendicular perforating vessels that come through the muscle to the skin. The latissimus dorsi muscle is one of the largest flat muscles in the body and supplies feeding vessels to a large territory of overlying skin. The major vascular supply of the muscle, and therefore its overlying skin is the thoracodorsal

artery accompanied by one or two venae comitantes, which, with the thoracodorsal nerve, enter the muscle as a single neurovascular pedicle approximately 10 cm. down from the muscle's insertion at the humerus. Therefore, it is possible to elevate at least as much as the anterior two-thirds of the muscle and its overlying island of skin on this hinge-like neurovascular pedicle without a delay and transpose the entire unit to the anterior chest wall either directly or by tunneling it beneath the axillary skin.

In 1912, D'Este¹⁰ described the method of Tansini for reconstruction of the chest wall at the time of radical mastectomy using a flap of the latissimus dorsi muscle and its overlying skin based in the axilla. The flap was transposed immediately to cover the mastectomy defect. In 1939, Hutchins,¹¹ using only the muscle portion of this flap, noted that the muscle, when transposed, from the back to the anterior chest wall simulated the resected pectoralis major muscle. More recently, Olivari⁷ in 1976 and Muhlbauer and Olbrisch⁶ in 1977 used Tansini's technique for reconstruction of the breast and chest wall using a musculocutaneous flap. In 1977, Mendelson and Masson¹² proved the usefulness of this flap to cover radiation ulcers of the shoulder. It is perhaps a testimonial to the hardiness of the flap and its excellent blood supply that it can be implanted in ischemic, radiated tissue and then heal to this tissue, providing the weight of this large flap can be adequately supported at its insertion. The muscle component of a musculocutaneous flap brings in tissue to the wound that has better vascularity than skin, and is therefore better able to combat the development of infection in the wound, than would a skin flap alone. This type of flap carries a skin island for one stage coverage that has a stronger and more natural blood supply for more secure survival than a skin flap elevated off muscle, and the island of full-thickness skin and its full complement of subcutaneous tissue is better quality and more durable skin coverage than could be obtained by any skin graft.

When a radical mastectomy has been done, one must consider whether the thoracodorsal vessels have been sacrificed during the axillary dissection. Pre-operative arteriography is not mandatory. One should examine the undersurface of the muscle through the incision to see the thoracodorsal vessels prior to flap elevation if there is any question of their absence.⁸ However, even if these specific vessels have been previously ligated, it should still be possible to safely elevate and transpose

this flap.¹³ This can be explained by the development of collaterals to the latissimus dorsi muscle from the rich blood supply from the scapular plexus, from the adjacent teres major muscle,⁹ and from the serratus anterior muscle.¹³ In such situations, the flap can still be elevated in the same manner without a delay, with the exception that as much areolar tissue and surrounding adipose tissue as possible should be left undisturbed in the region of the flap's attachment to the humerus, and the flap should be freed up in the area of the pedicle only as much as is absolutely necessary to transpose it to the defect, since it is this surrounding tissue that contains the muscle's blood supply. The flap is still remarkably useful and durable. It provides a very reliable form of reconstruction for major chest wall defects such as the one presented here when mere split-thickness skin grafting would not be sufficient, when local skin flaps are not available, and when other forms of coverage, such as a flap of greater omentum with a split-thickness skin graft, are not desired.

Summary

A brief overview of the biological, surgical therapeutic, and reconstructive aspects of the complications of radiation effects on tissue such as may occur with radiation therapy to the chest wall is presented. An illustrative case is reported of a 67-year-old woman who underwent a simple mastectomy and postoperative radiation for breast carcinoma 15 years ago and developed a deep, chronic ulcer of the chest wall. The pathogenesis of radiation injury, general treatment principles, the importance of first ruling out recurrence of carcinoma, and the rationale behind reconstruction with a latissimus dorsi musculocutaneous flap for her particular wound are discussed.

References 1. Ariyan S, Krizek TJ: Radiation Effects. Biological and Surgical Considerations. Reconstructive Plastic Surgery. JM Converse (ed). W.B. Saunders Company, Philadelphia, 1977. Chapter 20, pp. 531-548. 2. Hartwell SW: Radiation Injury. Plastic Surgery, 3rd Edition. WC Grabb and JW Smith (ed). Little, Brown and Company, Boston, 1979. Chapter 25, pp. 484-488. 3. Krizek TJ: Difficult Wounds: Radiation Wounds. Clinics in Plastic Surgery: Infection, 6:4, pp. 541-543, 1979. 4. Bostwick J III, Vasconez LO, Jurkiewicz MJ: Breast reconstruction after a radical mastectomy. *Plast Reconstr Surg* 61:682-693, 1978. 5. Bostwick J III, Nahai F, Wallace JG, Vasconez LO: Sixty latissimus dorsi flaps. *Plast Reconstr Surg* 63:31-40, 1979. 6. Muhlbauer W, Olbrisch R: The latissimus dorsi myo-cutaneous flap for breast reconstruction. *Chir Plastica* 4:27-34, 1977. 7. Olivari N: The latissimus flap. *Br J Plast Surg* 29:126-128, 1976. 8. McCraw JB, Penix JO, Baker JW: Repair of major defects of the chest wall and spin with the latissimus dorsi myo-cutaneous flap. *Plast Reconstr Surg* 62:197-205, 1978. 9. May JW Jr, Toth BA, Cohen AM: Teres major-

latissimus dorsi skin-muscle flap for chest wall reconstruction. *Plast Reconstr Surg* 69:326–328, 1982. **10.** D'Este S: La technique de l'amputation de la mamelle pour carcinome mammaire. *Rev Chir (Paris)* 45:164–210, 1912. **11.** Hutchins EH: A method for the prevention of elephantiasis. *Surg Gynec & Obst* 69:795–804, 1939. **12.** Mendelson BC, Masson JK: Treatment of chronic radiation injury over the shoulder with a latissimus dorsi myo-cutaneous flap. *Plast Reconstr Surg* 60:681–691, 1977. **13.** Maxwell GP, McGibbon BM, Hoopes JE: Vascular considerations in the use of a latissimus dorsi myo-cutaneous flap after a mastectomy with an axillary dissection. *Plast Reconstr Surg* 64:771–780, 1979. **14.** Serafin D, DeLand M, Lesene CB, Smith PJ, Noell KT, Georgiade N: Reconstruction with vascularized composite tissue in patients with excessive injury following surgery and irradiation. *Am Plast Surg* 8:35, 1982. **15.** Robinson DW: Surgical problems in the excision and repair of radiated tissue. *Plast Reconstr Surg* 55:41–49, 1975.

From the Division of Plastic & Reconstructive Surgery, Trover Clinic, Madisonville, Kentucky, University of Louisville School of Medicine, Louisville, Kentucky

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

There's never been a better match.

When you bring two hospitals together who complement each other as well as Baptist Hospital East and Highlands Baptist, everybody benefits. It's because the two hospitals were carefully developed to be a system.

They share resources and technology. And they share one of the finest medical staffs in the region. Together, the two hospitals offer a broader range of services than any other hospital in

the area. Their services complement rather than duplicate, so they can meet a much broader range of needs.

And because the hospitals operate as a system, health care costs are lower — for everybody. Highlands Baptist Hospital and Baptist Hospital East: what could be a better match?

We invite you to join the staff of our family oriented health care system.



Baptist
Hospital
East

Highlands
Baptist
Hospital

BAPTIST • HOSPITALS • INC.

A growing tradition

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA



**FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY**

YOUR FIRST STEP TO FIRST QUALITY PROTECTION

CONTACT FIELD REPRESENTATIVES

Louisville Office
DONALD G. GREENO
400 Sherburn Lane, Suite 104,
Louisville, Kentucky 40207
(502) 895-5501

Lexington Office
CHARLES E. FOREE
Suite 103B, 152 East Reynolds Road
Lexington, Kentucky 40503
(606) 272-9124

High School Athletic Injuries

An Unrecognized Need for Specialized Care

GARNER E. ROBINSON, M.D., GARY B. WILKERSON, A.T.C. AND R. QUIN BAILEY, M.D.

The purpose of this article is to eliminate the reasons for "not recognizing" the need for teacher-trainers in our high schools and to prove the necessity for "recognizing" and providing for that need. The medical profession recognizes the need and is active in trying to improve the health care and safety of the student athlete. The value and advantages of having a trainer on the faculty and what's happening in Kentucky and other states is discussed. Every school can afford the teacher-trainer concept. But can they afford not to? The best protection against litigation is a sound sports-medicine program under the guidance of a certified athletic trainer. This article was written, with confidence, that soon all persons will recognize the need for the specialized care provided by athletic trainers and will respond positively to that need.

"If I went back to coaching football at the high school level, rather than four or five assistant coaches, I'd ask for a full-time athletic trainer," says Roy Kidd, head football coach for Eastern Kentucky University. "My job is to coach, not train. Yet, most high school football coaches are responsible for the on the spot injury care that athletes receive and overseeing rehabilitative efforts."¹

An unrecognized need? Perhaps by many; but not unrecognized by the Kentucky Medical Association. Ten years ago the KMA House of Delegates passed a resolution urging the appointment of certified athletic trainers "where and when possible" to improve athletic care.² Again in 1981, the Houses of Delegates directed the Board of Trustees to encourage state legislation to find a way to help our high schools obtain this specialized care.³

Legislation was passed that provided state licensure for athletic trainers. It appears that a majority of our legislators favor the concept of teacher-trainers. However, they stop short of funding the project. The September 1983 meeting of the KMA House of Delegates produced another resolution instructing the Kentucky Medical Association to work with the Kentucky High School Athletic Association "to help insure the health of the state's high school athletes."⁴

The American Medical Association recognizes the importance of the role of the professionally prepared athletic trainer as a part of the team responsible for the care of the athlete. They commend the National Athletic Trainers Association for its efforts to upgrade professional standards, since improved preparation and continuing education enable athletic trainers to work effectively with physicians in the health supervision of sports. The AMA encourages state and local medical societies and physicians individually to help advance the professional goals of the National Athletic Trainers Association in their communities through appropriate liaison activities.⁵

The Kentucky Medical Association's Committee on School Health, Physical Education and Medical Aspects of Sports is doing something about this unrecognized need. They surveyed 300 Kentucky high schools in 1983. Two hundred thirty five schools replied; 74% (172 schools) claim they had a team physician and 26% (63 schools) did not.⁶ This committee has been working with local county medical societies' secretaries to help find team physicians for all schools.

A team physician for all schools is a goal worth achieving but this will not solve the true need. The majority of athletic injuries occur during practice time rather than games.⁷ Many team physicians would wish to attend all practice sessions but, in reality, very few can find the time. Serious injury can occur in practice as easily as in a game. It is during practice that the need exists for someone qualified to deal with a life

threatening injury to be available. The teacher-trainer best fills this need in the system.

The American Academy of Pediatrics states the "trainer is on site on a daily basis, working in concert with the team physician, family physician or consulting physician. The athletic trainer can be an associate to the physician, an ally to the coach, a peer to the administrator, a protector, friend and confidant to the player, and a source of comfort to the parent who has a continual concern about 'Who is taking care of my child'."⁸

Hundreds of thousands of young people are injured in the United States each year as a result of participation in high school athletic programs. Many people will agree that the qualities developed through athletic competition are well worth the inherent risk of the injuries. Very little has been done to lessen the severity of their impact on the high school student athletes. Many of the injuries sustained by high school athletes are recurrent, due to inadequate on-the-site treatment and lack of rehabilitation. Some degree of permanent disability often results.

To avoid re-injury and subsequent chronic physical problems, athletes need the daily attention provided by an athletic trainer. A study by Blyth and Mueller, professors at the University of North Carolina, showed that high schools without an athletic trainer had an injury rate of 50% and a reinjury rate of 71%. A recent study of 28 North Carolina high schools, that have a certified athletic trainer showed an injury rate of 29% and a reinjury rate of only 3%.⁹

Responsibilities and Duties of the Athletic Trainer¹⁰

1. Close observation of all athletes during practice and games for signs and symptoms that suggest necessity for referral to the physician.

2. Recognition of injury severity and the administration of first aid to injured athletes.

3. The use of techniques and devices such as adhesive strapping, wrapping and bracing to prevent injuries or recurrence of injuries.

4. The practice of physical therapy techniques and rehabilitation procedures that he/she is qualified to perform, under the direction of the team physician, to restore injured athletes to competition as soon as possible.

5. Cooperation with the coaching staff in the development and supervision of a conditioning program for the athletes.

6. Supervision of all playing areas to see that they are free from hazards.

7. The utilization of a record system concerned with injury reports, treatment given, and all matters concerned with the physical health of the athlete, such as medical histories and physical fitness tests.

8. Supervision and maintenance of the training facility by keeping it in an orderly and sanitary state, and by keeping it adequately supplied and equipped.

9. The provision of properly trained personnel, if available, and emergency care equipment and supplies needed in case of any type of athletic injury at the site of practice sessions and home competition.

10. Supervision and clinical instructions of student trainers.

11. The practice of general health measures to prevent the spread of infectious diseases and maintenance of good hygiene not only in the training room but also in the showers, locker room, and at the site of practice sessions and competition. Encouragement of athletes to practice good personal hygiene.

12. Cooperation with coaches and team physician in the selection of the best available protective equipment for the athlete and check on its fit, care and maintenance.

13. Cooperation with dieticians and the team physician in planning pre-game meals and the training table.

14. Counsel and advise athletes and coaches on matters pertaining to conditioning, diet, rest, exercise, ergogenic aids, re-conditioning and other similar physical health matters.

In all too many cases, these duties are not delegated to anyone. Sometimes these duties are delegated to a person who has little or no specialized education in sports medicine. The certified athletic trainer is a health care professional who has met the requirements as set forth by the National Athletic Trainers Association. These include a bachelor's degree, specialized course work, a minimum of 800 hours of supervised internship which can be accomplished over a two to five year period of time while attending school. The successful completion of a written and oral practical examination followed by continuing education is also required.

The University of Louisville, Eastern University and Western University in Kentucky are providing this educational program. They have been producing about 10 athletic trainers yearly and could produce 30 without loss of quality.

Journal of the Kentucky Medical Association

The Teacher—Trainer Concept

The employment of a certified athletic trainer in high school is no more complicated than the hiring of a certified teacher who also meets the requirements of the National Athletic Trainers Association. This person would be a school faculty member teaching a regular class schedule in addition to having duties as an athletic trainer.

School systems provide additional salary increments to coaches and other teachers with assigned responsibilities for after school activities. Coaches usually have seasonal responsibilities. The athletic trainer must also receive a salary increment. His/her duties are not seasonal. The time involved is lengthy, continuing through the school year. Such increments are not that costly. It is a matter of priorities. School systems can afford the extra increment for a trainer if it is important to them. Often it is the unrecognized need that puts the trainer low on a priority list.

What's Happening In Other States?

Two-thirds of North Carolina's high schools have teacher-athletic trainers.⁹ All the large high schools in Texas employ trainers. Arizona has made rapid gains in the last few years. Illinois, Indiana and Ohio are making progress. West Virginia passed legislation requiring trainers in all their high schools but stopped short of requiring them to be certifiable.

What's Happening In Kentucky?

Currently Kentucky has five high schools with athletic trainers. Ashland Paul Blazer High School was the first in the state and has seven years experience with a certified athletic trainer on their faculty. Other Kentucky schools with trainers are Boyd County High School, Convington Holmes High School, and Louisville's Doss High School and Fairdale High School.

The Kentucky Medical Association's Committee on School Health, Physical Education and Medical Aspects of Sports working with the Kentucky High School Athletic Association formed a sub-committee on athletes' health. Currently, an attorney-legislator, five physicians, two certified athletic trainers, five educator-administrators, a State Board of Education representative, an official, and a member of the KHSAA Board of Control serve on the committee.

A November 1983 meeting of this committee resulted in three unanimous recommendations.

1. Performing a feasibility study, by the KHSAA, on requiring teacher-trainers in Kentucky's high schools.

2. Requiring head coaches of high risk sports to take a multimedia course (standard first aid and CPR training) and to attend a sportsmedicine symposium, sanctioned by the KMA, on an annual basis.

3. Requiring officials be trained in cardiopulmonary resuscitation and recertifications as required.

The KHSAA and the State Superintendent of Public Instruction have been cooperative in encouraging coaches to attend the annual Medical Aspects of Sports Symposium.

The Ashland Experience

Stephen Towler, PhD., past superintendent of the Ashland Public Schools, spoke to the Tenth Annual Medical Aspects of Sports Symposium in 1981. He related the true story of an assembly of the high school students in the gymnasium. The students were seated on the roll-away gym seats. Suddenly, a large section of the seats broke their fasteners and started rolling backward into storage position. Panic occurred among those students whose legs and bodies were becoming trapped in the seats. It was then obvious that having a teacher-trainer and his student athletic trainers available was most valuable. With the utmost speed and skill, this group calmed students, rendered first aid, and had everyone cared for by the time the ambulances arrived.

Recognizing that trainers are not "just for athletes," the Ashland Sportsmedicine program provides a skilled professional with a first aid station (training room) for faculty members and all students who may have an injury or emergency during school hours.

Other obvious advantages are a savings on athletic insurance for schools who employ a certified athletic trainer and a savings on centralization of medical supplies in cost and usage.¹¹

There is a real advantage to the student athletic trainers themselves developing into confident, knowledgeable, young people who pursue careers in the health professions. Three Ashland student trainers have obtained scholarships for athletic training at major universities.

Ashland School Board Policy: Sportsmedicine Program¹²

It is the intent of the Ashland Board of Education that, to the greatest extent possible with available resources, a sports-medicine program will be maintained for students involved in inter-scholastic athletics.

Where reasonable and practicable, the service of a team physician, a certified athletic trainer, and student trainers will be utilized in the sportsmedicine program. Additionally, all coaches are to have a knowledge of injuries that may be associated with his/her sport and the first aid measures necessary to manage these injuries properly.

Knowledge concerning the responsibilities of the physician, athletic trainer, coach, and administration are essential prerequisites in the application of a sportsmedicine program. Therefore, the specific responsibilities of all those who may be involved in the health care of the student athlete shall be set forth in writing by the administration. The responsibilities for making medical decisions affecting the student's future in athletics and in life are to be made by those best qualified by training and experience to make such decisions.

All medical decisions regarding the playability of a student athlete are the responsibility of the team physician (or a physician designated by the team physician). In the absence of a physician, such decisions are the responsibility of the athletic trainer when one is present and the head coach, if the physician or athletic trainer is not available.

Liability

A Seattle, Washington sports liability case helped administrative educators recognize the need and has been a catalyst for the development of safer sportsmedicine programs for student athletes. More than \$6 million was awarded to a football player who received an injury that left him a quadriplegic.¹³

School districts and their coaches are the latest targets of litigation by the families of injured athletes. To help prevent lawsuits, coaches must keep accurate records to document that they are using safe coaching techniques.¹³

An attorney with extensive experience in sportsmedicine litigation, Richard Ball, tells us: "Two concerns must be kept in mind. (1) First and foremost is the health and safety of the athlete and (2) Second, but of great importance, is the protection of the school against litigation."

"The employment of at least one certified athletic trainer in every institution or athletic organization is as necessary as the employment of a coach for every sport. Preferably the athletic trainer should be on duty even during physical education activity but it is particularly important during practice periods and games."

"Every team should likewise have a licensed medical practitioner with whom a fixed arrangement is made to render services as a team physician."

"At all practices as well as games the equipment necessary for the handling of a serious emergency must be on the field. There must also be a telephone available to make an immediate call for help if it is needed. Every reasonable effort to reduce the delay in obtaining treatment for an injured athlete should be undertaken. When an injury occurs it must be given immediate attention and top priority. It is here, more than any other time that the team needs the presence of someone whose sole concern is the care and treatment of injuries."¹⁴

Summary

The medical profession has recognized the need for teacher-trainers in schools. The certified athletic trainer is a well trained professional who implements prevention of injury programs, provides immediate first aid treatment and follow-up rehabilitation procedures for the student athlete under the supervision of a physician.

Every secondary school can afford a teacher-trainer as a member of their faculty. When the educational administrators recognize the need for specialized care, better health care and safety of the student athlete, with less litigation, will be possible.

References 1. Kidd R. Head Football Coach, Eastern Kentucky University, Richmond, Ky. "Football Coach or Trainer, Most High School Coaches Must Accept Dual Role," Cramer, *The First Aider*, September '81. 2. Yeager, Bob, Special Report, "Medical Care for Young Athletes: Pretty Barbaric, But That's the Way It Is," *The Physician and Sportsmedicine*, November '74, pp 75-79. 3. *Journal Kentucky Medical Association*, Dec. '81, Vol.79, No.12. 4. *Journal Kentucky Medical Association*, Dec. '83, Vol. 81, No.12. 5. American Medical Association's Reference Guide to Policy and Official Statements, Division of Communications, 1983 p. 9. 6. Kentucky Medical Association's Committee on School Health, Physical Education and Medical Aspects of Sports, Minutes of March 31, 1983 meeting. 7. Bachman MD, Steingard D, DO, Paul M, *et al* Round Table, "Are Athletic Trainers a Luxury or a Necessity?" *The Physician and Sportsmedicine*, October '77, pp 51-64. 8. Smith J. Editor, *Sportsmedicine: Health Care for Young Athletes*, Committee on Sportsmedicine, American Academy of Pediatrics, '83, p. 223. 9. Blyth, PhD., Carl S., Mueller PhD., Frederick, *The Physician and Sportsmedicine*, Nov. '83, pp 35-36. 10. Miller, MPE,RPT, Sayers "Bud," "The Athletic Trainer, the Medical Aspects of Sports": 16 *American Medical Association*, p. 40. 11. Proctor, ATC, David, "Kentucky High School Finds Investing in A.T.C. Makes Cents in Long Run," Cramer *The First Aider*, September '81, p. 4. 12. Ashland Independent Public School District, Pupil Personnel Pol-

ATHLETIC INJURIES—Robinson, Wilkerson and Bailey

icies, Sportsmedicine Program, p. 5039. 13. Evans, Sam H., "Coaches Negligence Target of Litigation," Cramer, The First Aider, September '83, p. 1. 14. Ball, Richard T., "Factors in Protecting Athletes: Equipment, Training, Medical Care," Cramer, The First Aider, Jan. '79.

Garner E. Robinson, M.D., Team Physician, Paul Blazer High School, Ashland, Kentucky. Gary B. Wilkerson, A.T.C., Head Athletic Trainer, Centre College, Danville, Kentucky. Quinn R. Bailey, M.D., Team Physician, Danville High School, Danville, Kentucky.

**General Leasing
Company of Kentucky**

Professional Transportation Management

**We administer your
physician's lease plan.**

We lease all makes —
everywhere.

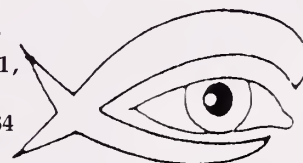
**GENERAL
LEASING**

121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383

Second Annual Multispecialty Oculoplastic Surgery Symposium

Symposium Director: William N. Offutt, IV, M.D.

LABOR DAY WEEKEND
Saturday, September 1,
1984—
Monday, September 3, 1984



Lexington Marriott Resort
Hotel
Lexington, Kentucky

12 CME credit hours

Category 1

Registration Fee

The fee for the course will be \$250 for each physician and \$50 for each resident. Each resident should include a letter from his or her chairman.

Make check payable to: Good Samaritan Hospital

For further information call or write:

Dr. Constance M. Fulmer
Director of Medical Education
Good Samaritan Hospital
Lexington, Kentucky 40508

(606) 252-6612 Extension 3156

There is a Name for Quality Psychiatric Care.

And Here's Where That



Outstanding Leadership in Charter Medical Corporation.

Leadership Stands Out in Kentucky.

For many patients, the most effective treatment can be best delivered by psychiatrists, working with highly qualified professionals, in a freestanding hospital whose entire staff is dedicated to quality psychiatric care.

Commitment to this philosophy is exemplified in each and every Charter Medical Hospital. All across America. Without exception.

You can depend on the fact that the staff will work with you to design and implement an individualized treatment plan for your patient. Involvement of the patient's family in the treatment process will be encouraged. There will be regular communication, between the hospital and the referring professional, about the patient's status. All psychiatrists on staff are Board Certified or Board Eligible. There is a wide variety of therapies available to enhance individualized treatment. And every Charter Medical Hospital has been designed to provide a modern therapeutic environment to promote your patient's recovery.

Here's where you can expect to find this outstanding leadership in Kentucky.

Charterton Hospital

507 Yager Avenue
LaGrange, Kentucky 40031
(502) 222-7148

Beds: 66

Psychiatric Staff: 4

Programs: Adolescent and Adult Addictive Disease

Other Programs: Counseling and Intervention Services in Louisville, KY

For further information about Charterton or admission procedures, contact:

Medical Director: Thomas Cassidy, M.D.

Hospital Administrator: Ralph Suratt

Charter Ridge Hospital

3050 Rio Dosa Drive
Lexington, Kentucky 40509
(606) 269-2325

Beds: 80

Psychiatric Staff: 24

Programs: Adult, Adolescent and Child Psychiatric; Adult Addictive Disease

For further information about Charter Ridge or admission procedures, contact:

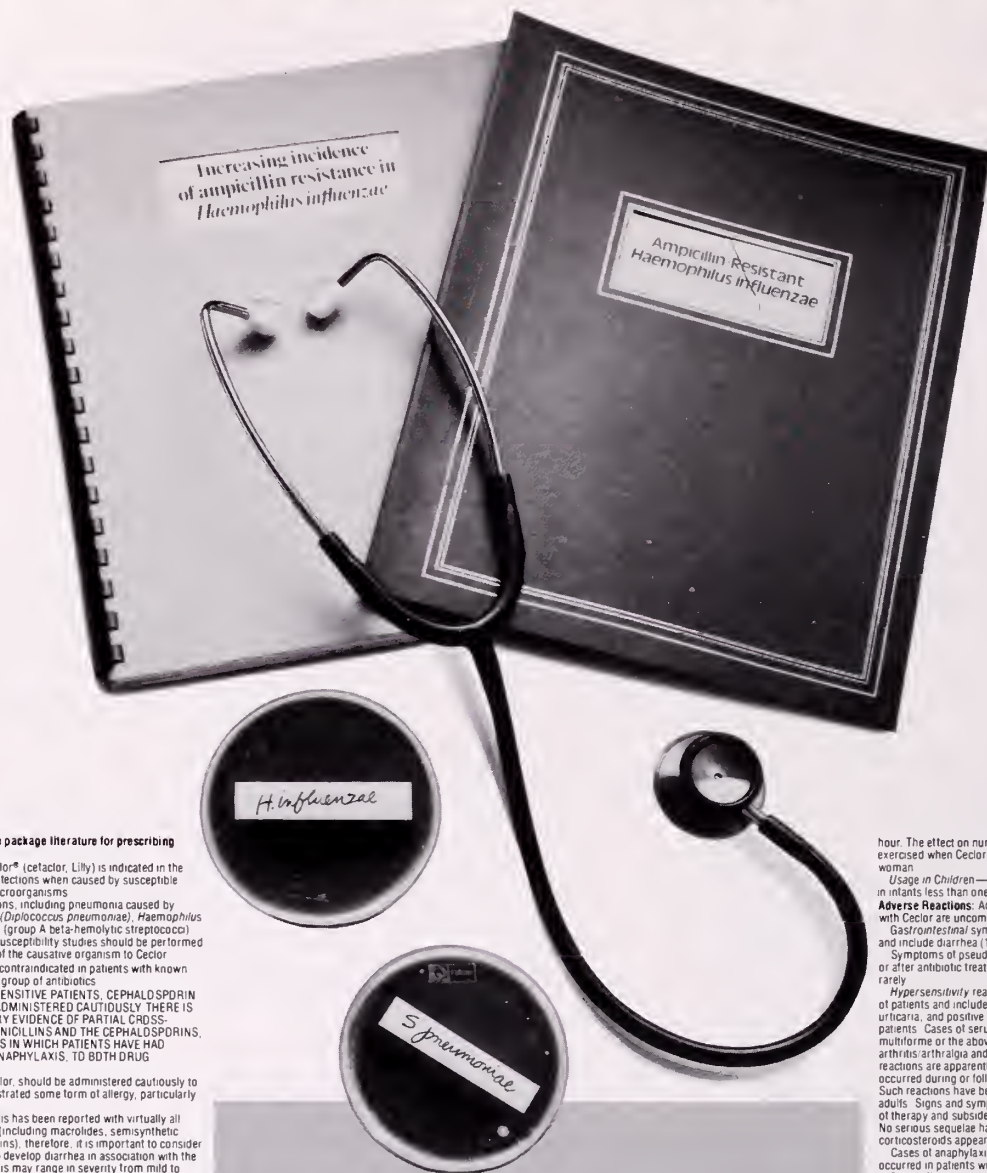
Medical Director: Verner Stillner, M.D.

Hospital Administrator: Jim Button



CHARTER
MEDICAL
CORPORATION

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage. Cefaclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefaclor.

Contraindication: Cefaclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Cefaclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of *Clostridium*. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: General Precautions—If an allergic reaction to Cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Cefaclor may result in the overgrowth of non-susceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antioglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Cefaclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefaclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinetest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly). Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—Pregnancy Category B—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in terrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Cefaclor. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Cefaclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefaclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefaclor.⁷

Cefaclor®

cefaclor

Pulvules®, 250 and 500 mg

hour. The effect on nursing infants is not known. Caution should be exercised when Cefaclor* (cefaclor, Lilly) is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Cefaclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthritis and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Cefaclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations of SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematologic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

(061782R)

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

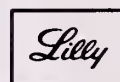
Note: Cefaclor is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother. 8:91, 1975.
2. Antimicrob. Agents Chemother. 11:470, 1977.
3. Antimicrob. Agents Chemother. 13:584, 1978.
4. Antimicrob. Agents Chemother. 12:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), 11th ed., Washington, D.C., American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother. 13:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

© 1982, ELI LILLY AND COMPANY



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

300035

EDITORIAL

W.A.S.H.

The above acronym may be one for all of us to bear in mind. In a recent edition of the *New England Journal of Medicine*, April 12, 1984, there appeared a special article entitled: "The Physician's Responsibility Towards Hopelessly Ill Patients." This was written by a Blue Ribbon panel of nationally known physicians from across America, all of whom are affiliated with prominent medical centers and universities.

The thrust of the article contains two basic precepts: (1) The patients role in decision making is paramount, and (2) A decrease in aggressive treatment of the hopelessly ill patient is advisable when such treatment would only prolong a difficult and uncomfortable process of dying.

As I read and re-read the paper, I was struck by the plea of not so much the need for physician knowledge but moreso the need of physicians caring. It is from this that I was able to construct the WASH.

Warmth

Availability

Sensitivity

Honesty

These traits become evermore important in the years ahead. More and more patients will be at home as the clock winds down. They will have used up their DRG allotment of hospital time and have been discharged by necessity. Quite possibly a younger terminally ill person may prefer to be at home with their family to share those important last moments.

Under these settings, the physician becomes the link between the medical knowledge and therapy needed from the outside and the support from the family on the

inside. Likewise the family wants information from the doctor as to how to best deal with the many ramifications of illness that they will be confronting for the very first time.

In my experience, relief from pain heads the list of problems to be dealt with. Both patient and family must understand that drug addiction is usually not a factor, since frequently the patient will not survive long enough to become addicted.

Diet also becomes a controversial area. The family wants to force feed and urge fluids to the sick for "nourishment." Not fully realizing that dehydration frequently becomes a friend to help dull both the senses and the suffering. The patient should be the one to request food and fluids.

Toward the end as stupor and light coma surfaces, the patient needs less care and the family more caring. This subtle nuance separates the doctor from the physician. . .the science from the art.

Perhaps *warmth*, *availability*, *sensitivity* and *honesty* need not be reserved for just the terminally ill person, but could be incorporated in all of our dealings with mankind. If these traits are appropriate at the ending might they not also be fitting in the beginning?

Milton F. Miller, M.D.



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

Endorsed by the
Kentucky Medical Association



AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

Guides to the Evaluation of Permanent Impairment, Second Edition

American Medical Association, Chicago, Illinois, 245 pages including index, hardbound. Published, April, 1984.

This workhorse in service of the permanently impaired continues to be the "best seller of all AMA publications. Though it has grown by 81 pages as compared to the preceding 1977 edition, it is in a more readable format with better typography and distinctly more decipherable tables. It firmly roots the differentiation between *impairment*, the medical condition determined by loss or abnormality, from *disability* which is more of a legal or administrative formulation indicating limitation of worker earning capability, and *handicap* which is the resulting reduction in performance that a patient experiences in dealing or living with permanent impairment. These three distinctions are less well established in other parts of the world.

This edition continues the same number of 12 chapters but with slight rearrangement to cover the following:

1. The extremities, spine and pelvis
2. The nervous system
3. The respiratory system
4. The cardiovascular system
5. The hematopoietic system
6. The visual system
7. Ear, nose, throat and related structures
8. The digestive system
9. The reproductive and urinary systems
10. The endocrine system
11. The skin
12. Mental and behavioral disorders

Two Kentuckians were among the 72 physicians serving on the revision task force. William H. Anderson, M.D. served with the group revising Chapter 3, The Respiratory System, and Arthur H. Keeney, M.D. chaired the group revising Chapter 6, The Visual System.

Readable charts extrapolate the quantitation of impairment in one of paired organs to quantitation of impairment in the organ system and further into impairment of the whole person. A few pages on technicalities of reports and a glossary seeking to clarify for the physician a better understanding of compensation agencies add implementation value not found in the earlier editions. Scars and cosmetic blemishes particularly about the face and eyes are treated more generously than in previous editions. Greater latitude is provided for individual physician evaluation of complex impairments. Newer instrumentation frequently appears in evaluation of impairments.

This publication was issued under final authority of the AMA Council on Scientific Affairs. The entire volume represents needed major improvements. Copies may be purchased directly for \$22.00 from the American Medical Association, Division of Publications, 535 N. Dearborn Street, Chicago, Illinois 60610.

Arthur H. Keeney, M.D.
Chairman

KENTUCKY THORACIC SOCIETY
Medical Section of the American Lung Association of Kentucky

30th ANNUAL SCIENTIFIC CONFERENCE
ON PULMONARY DISEASE

September 7 & 8, 1984

Kenlake State Park

Friday, September 7

Moderator: L. G. Dickinson, MD

Internal Medicine

Glasgow, KY

I. UNIVERSITY LECTURE SERIES

- | | |
|-----------|---|
| 1:00 p.m. | <u>Kentucky Children and Tuberculosis: A Perspective</u>
Garrett Adams, MD, MPH
University of Louisville School of Medicine
Department of Pediatrics |
| 1:30 p.m. | <u>Cystic Fibrosis</u>
Jamshed F. Kanga, MD
University of Kentucky College of Medicine
Department of Pediatrics |
| 2:00 p.m. | 1984 L. E. Smith Lecture
"Pitfalls in the Determination of End-Air-Space Filling Versus Interstitial Diseases of the Lung; A Radiologic-Pathologic Correlation"
Elias G. Theros, MD
I. Meschan Distinguished Professor of Radiology
Wake Forest University
Bowman Gray School of Medicine |
| 2:45 p.m. | BREAK |

II. PANEL SYMPOSIUM – "Pulmonary Rehab"

- | | |
|-----------------|--|
| 3:30–5:00 p.m. | Sibu P. Saha, MD
Thoracic Surgeon, Lexington
John A. Lloyd, MD
Pulmonary Disease Specialist, Louisville
Vickie Miracle, RN, MSN
Critical Care Specialist, Louisville
David Allnutt, RRT
Respiratory Therapist, Louisville |
| 5:00 p.m. | KTS Business Meeting |
| 6:00–8:00 p.m. | Cocktails and Dinner |
| 8:00–11:00 p.m. | Dance
"The Music Makers" |

Saturday, September 8

Moderator: Steve Kraman, MD
VA Medical Center
Lexington, KY
8:00 a.m.

Coffee and Doughnuts

III. ORIGINAL PAPERS

8:30 a.m.

Pulmonary Manifestations of the Acquired Immunodeficiency Syndrome (AIDS)

Dr. G. C. Scott, MB Beh. and Marcus Kung, MD
University of Kentucky College of Medicine
Department of Medicine

8:45 a.m.

Immunocytochemical Diagnosis of Lymphoma in Pleural Effusions

L. T. Yam, MD; A. J. Janckila, MD; H. L. Snider, MD; and C. Y. Li, MD
VA Medical Center and University of Louisville School of Medicine, and the Mayo Clinic and Mayo Medical School, Rochester, MN

9:00 a.m.

Application of ILO Classification to Smokers with Chronic Bronchitis: Similarities with Pneumoconiosis

John H. Woodring, MD; Barbara A. Phillips, MD; and Carol B. Stelling, MD
University of Kentucky Medical Center
Departments of Diagnostic Radiology and Internal Medicine

9:15 a.m.

Usefulness of Abdominal Muscle Sound Display in the Detection and Classification of Sleep Apnea

Barbara Phillips, MD and Steve S. Kraman, MD
VA and University of Kentucky Medical Centers
Department of Medicine

9:30 a.m.

Percutaneous Pericardial Drainage for Pericardial Tamponade

W. Robin Howe, MD
University of Louisville School of Medicine
Department of Surgery

9:45 a.m.

Mechanical Irritation of the Larynx Reflexively Evokes Nonadrenergic Bronchodilation

L. Diamond, PhD; J. L. Szarek, MD; M. N. Gillespie, MD; and R. J. Altieri, MD
University of Kentucky College of Pharmacy

10:00 a.m.

Variables Associated with Peak Expiratory Flow in Men Before and After Cholecystectomy

Dorothy C. Luther, RN, MA and Sondra G. Ferguson, RN, MSN
University of Kentucky College of Nursing

10:15 a.m.

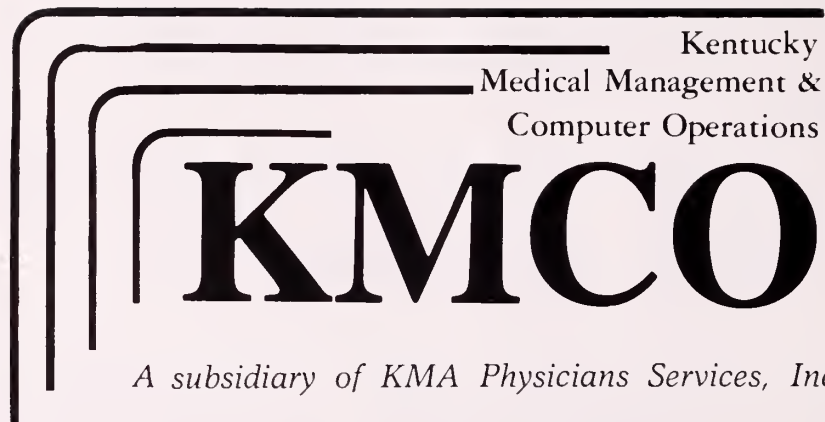
Tumors of the Heart

Gary L. Griffith, MD and Edward P. Todd, MD, PhD
University of Kentucky College of Medicine
Department of Surgery

10:30 a.m.

BREAK

IV. CASE REPORTS



For the physician's office

"Tomorrow's Technology is Here Today"

Created exclusively to deal with the specialized needs of the physician's office, KMCO is ready to answer your questions on all phases of practice management and computer technology. We know a more efficient practice is the key to more efficient patient care.

Visit us in booth #14 during the KMA Annual Meeting

For Additional Information Call Us At:
Louisville Area 451-2095 or 1-800-292-1675
or mail this coupon

Send me further information on

- ☐ Computer Services
- ☐ Consultation
- ☐ Practice Management Workshops

Name _____

Address _____

City _____ State, Zip _____

Telephone _____

Mail to: KMCO
3532 Ephraim McDowell Dr.
Louisville, KY 40205

HEALTH PROFESSIONALS!

The Army Medical Department represents the largest comprehensive system of health care in the United States and offers unique advantages to the student, resident, and practitioner in the following professions:

- Neurosurgery
- General Surgery
- Orthopedic Surgery
- Obstetrics & Gynecology
- Otolaryngology
- Anesthesiology
- Psychiatry
- Child Psychiatry
- Family Practice
- Emergency Medicine
- General Medicine
- Pediatrics

As an Army Officer, you will receive substantial compensation, an annual paid vacation, and participate in a remarkable non-contributory retirement plan.

For more information just fill out the attached form and mail. Or call: (614) 238-2305/3507. (Collect calls accepted.)



Medical School Scholarships are Available

PLEASE SEND MORE INFORMATION ABOUT OPPORTUNITIES
IN THE ARMY MEDICAL DEPARTMENT
MAIL OR CALL:

ARMY MEDICAL DEPT. 530 JACK GIBBS BLVD, BLDG #84
COLUMBUS, OH 43215 (614) 238-2305/3507

NAME _____ AGE _____

ADDRESS _____

ZIP _____ PHONE (AC) _____

SCHOOL ATTENDED/ATTENDING _____

GRADUATION DATE _____ DEGREE _____

SPECIALTY AREA OF INTEREST _____

KENTUCKY MEDICAL ASSOCIATION

ANNUAL MEETING

Hyatt Regency - Lexington Center, Lexington

September 18-20, 1984



Welcome To Lexington — The Heart Of The Bluegrass

After Attending Activities At The Annual Meeting Don't Miss The
Following Special Attractions In The Lexington Area:

- Harness Racing — Big Red Mile — Fall Racing September 11-22
- Gratz Park Walking Tour
- Headley-Whitney Museum
- Mary Todd Lincoln House
- Shaker Village of Pleasant Hill
- Hunt-Morgan House
- Kentucky Horse Park
- Ephraim McDowell House
- Kentucky Horse Center

FOR HOTEL RESERVATIONS CALL TOLL FREE 1-800-228-9000

SPECIAL RATES FOR KMA ANNUAL MEETING

1984 Annual Meeting Section

KMA Officers for 1984-85	400
Official Call to Meeting	409
District Trustees and Trustee Map.....	404
Reference Committee Activity	408
Nominating Committee.....	409
Special Features.....	410
Program Summary	412
Scientific Program	413
Summaries of Presentations	422
Technical Exhibits.....	430
Scientific Exhibits	439

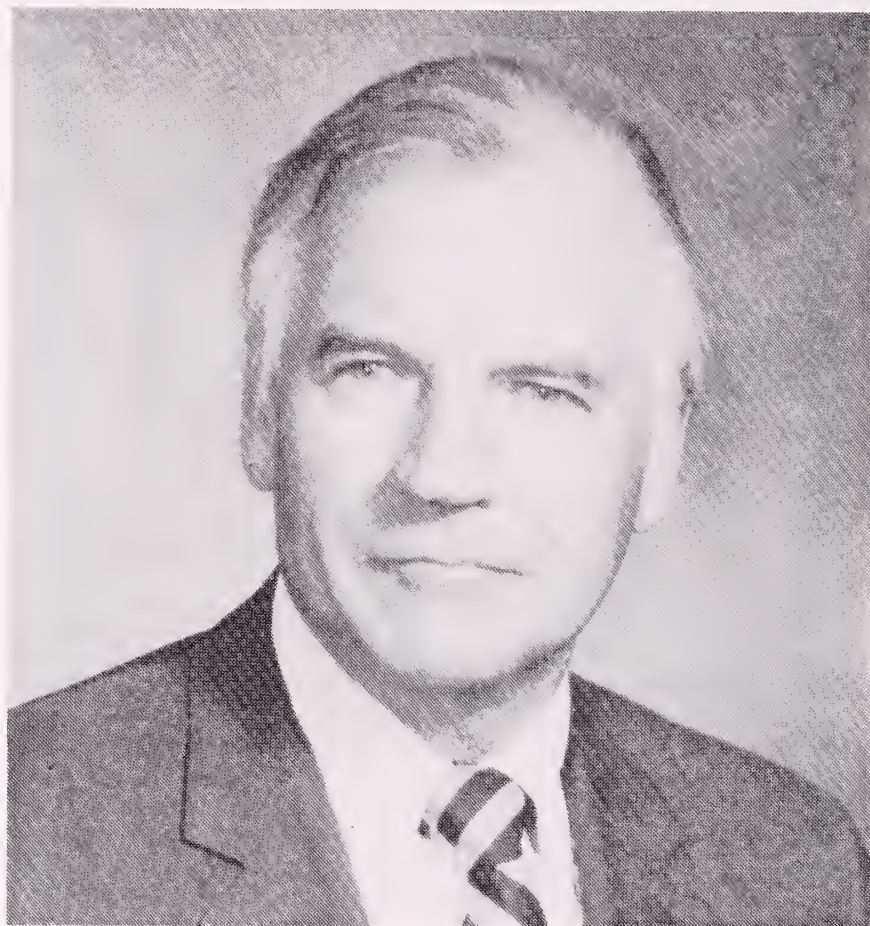
**See you
at
the convention.**

HYATT REGENCY  LEXINGTON

AT LEXINGTON CENTER

400 WEST VINE STREET
LEXINGTON, KENTUCKY 40507
606 253 1234

KMA OFFICERS 1983-1984



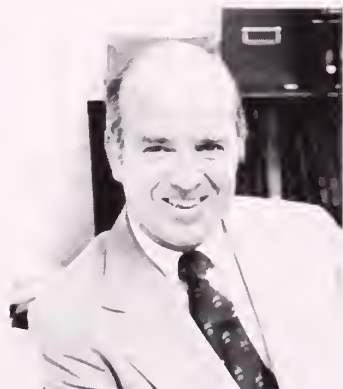
James B. Holloway, Jr., M.D.
KMA President



Charles C. Smith, Jr., M.D.



Wally O. Montgomery, M.D.



S. Randolph Scheen, M.D.



Peter C. Campbell, Jr., M.D.



Thomas L. Heavern, M.D.

PRESIDENT-ELECT

Charles C. Smith, Jr., M.D.

Louisville

Charles C. Smith, Jr., M.D., will be installed as President of the Kentucky Medical Association at the President's Luncheon on Wednesday, September 19.

Doctor Smith, a Louisville internist, completed his undergraduate work at Georgetown College where he graduated Summa Cum Laude. He received his medical degree from the University of Louisville School of Medicine and currently is in practice in Louisville.

Doctor Smith is a former President of the Jefferson County Medical Society and the Louisville Society of Internists. He served on the Board of Trustees of the Methodist Evangelical Hospital from 1973-1977 and has served KMA as Vice President and Scientific Editor of the *Journal of the Kentucky Medical Association*. Doctor Smith is a Fellow of the American College of Physicians.

VICE PRESIDENT

Wally O. Montgomery, M.D.
Louisville

Wally O. Montgomery, M.D. is a practicing general surgeon and a 1962 graduate of the University of Louisville School of Medicine. Doctor Montgomery is a Fellow of the American College of Surgeons and a Diplomate of the American Board of Surgery. He is a member of the McCracken County Medical Society and has served as Alternate Delegate to AMA and Chairman of the Board of KEMPAC. Doctor Montgomery is a member of the staff of Western Baptist Hospital where he has served as president of the medical staff.

VICE SPEAKER OF THE HOUSE

Thomas L. Heavern, M.D.
Highland Heights

Thomas L. Heavern, M.D., is a pediatrician with the Northern Kentucky Pediatric Group, PSC. Doctor Heavern served a KMA Parliamentarian from 1981 to 1983 and has been an AMA Delegate since 1965 and was an alternate delegate from 1972-1976. He has also served on the KMA Rules Committee of the House of Delegates, Constitution and Bylaws Committee and as regional Editor for the *Journal of the Kentucky Medical Association*.

SPEAKER OF THE HOUSE

Peter C. Cambell, Jr., M.D.
Louisville

Doctor Campbell, ophthalmologist, is Clinical Professor of Ophthalmology at the University of Louisville School of Medicine. He was last year's President of the Jefferson County Medical Society and is a member of the American Academy of Ophthalmology and Otolaryngology, the Kentucky Academy of Eye Physicians and Surgeons, and is President of the medical staff at Methodist Evangelical Hospital.

SECRETARY-TREASURER

S. Randolph Scheen, M.D.
Louisville

Doctor Scheen was KMA Secretary for eight years before his election as Secretary-Treasurer in 1975. A dermatologist, he is a graduate of the University of Louisville and University of Minnesota medical schools. Doctor Scheen serves the Association as a member of the Budget Committee and Judicial Council. He is a member of the American Academy of Dermatology and the Alumni Foundation of the Mayo Clinic, and is a regular participant on local television and radio programs, answering questions from the public on dermatology.

KMA Delegates

Fred C. Rainey, M.D.

Elizabethtown

Doctor Rainey was elected as AMA Delegate in 1974, having previously served as President of KMA, Alternate AMA Delegate, and Board Chairman of KEMPAC. A 1955 graduate of the University of Tennessee College of Medicine, Doctor Rainey is a family physician. He is a member of the AMA Council on Legislation, chairman of the American Medical Political Action Committee, the Kentucky Academy of Family Physicians, and the American Academy of Family Physicians.



Harold D. Haller, Sr., M.D.

Louisville

Elected an AMA Delegate in 1976, Doctor Haller has been active on the Committee on Maternal and Child Health and the Committee on Health Care Costs. Doctor Haller graduated in 1963 from Bowman Gray Medical School, and has been in family practice since then. A charter member of the American Board of Family Practice, Doctor Haller also has served as President of the Kentucky Chapter of the American Academy of Family Physicians.



Dwight L. Blackburn, M.D., Berea

Dwight L. Blackburn, M.D., was elected as AMA Delegate in 1983. Doctor Blackburn, a family physician, is former President of KMA and Chairman of the Board of Trustees. He currently serves on the Kentucky Medical Insurance Corporation Board of Trustees and is Chief of Staff at Berea Hospital, Inc.



Donald C. Barton, M.D., Corbin

Donald C. Barton, M.D., Chairman of the KMA Board of Trustees was elected AMA Delegate in 1983. Doctor Barton, a family practitioner, served as KMA Delegate from 1977-79 and AMA Alternate Delegate in 1983. He is a 1960 graduate of the University of Louisville School of Medicine.



New Trustees

John D. Noonan, M.D., Paducah

John D. Noonan, M.D., is serving as Trustee from the First District. A Paducah neurosurgeon, Doctor Noonan is currently President of the McCracken County Medical Society and has served KMA as a Delegate from 1980-82 and as an Alternate Trustee in 1981-83. Doctor Noonan is a member of the KEMPAC Board and currently



serves as Treasurer of KEMPAC. He is a 1964 graduate of the University of Louisville School of Medicine.

JOURNAL EDITORS

EDITOR

A. Evan Overstreet, M.D., Louisville

Doctor Overstreet had served on the Editorial Board for more than six years before becoming Editor of *The Journal* in September 1977. An internist, Doctor Overstreet is a 1955 graduate of the University of Louisville School of Medicine. He is a member of the American Society of Internal Medicine, the American College of Physicians, and the Transylvania Medical Society.

Paul C. Grider, Jr., M.D., Louisville

Doctor Grider has served as Scientific Editor of *The Journal* since 1975. An internist, Doctor Grider was President of the Louisville Society of Internists from 1976 to 1977 and former President of the medical staff at Methodist Evangelical Hospital. Doctor Grider is a 1958 graduate of the University of Louisville School of Medicine.

Milton F. Miller, M.D., Louisville

Doctor Miller is Associate Clinical Professor of Medicine at the University of Louisville School of Medicine. An internist, Doctor Miller has served as Assistant Editor of *The Journal* since 1976, and has been on the Membership Committee of the Jefferson County Medical Society. He is a 1954 graduate of the University of Louisville.

G. Randolph Schrodtt, M.D., Louisville

Doctor Schrodtt has served as Assistant Editor since 1974. A 1954 graduate of the University of Louisville School of Medicine, Doctor Schrodtt is a pathologist, and is Professor and Chairman of the Department of Pathology at the University of Louisville School of Medicine. He is a member of the American Society of Clinical Pathologists and the International Academy of Pathology.

Stephan Z. Smith, M.D., Louisville

Doctor Smith has served as Assistant Scientific Editor for *The Journal* since 1977. A dermatologist, Doctor Smith is a 1971 graduate of Johns Hopkins University School of Medicine. He is a member of the American Academy of Dermatology, the Kentucky Medical Association and the American Medical Association.

David L. Stewart, M.D., Louisville

Doctor Stewart, a former Editor of the Jefferson County Medical Society Bulletin, is in his seventh year as Assistant Editor of *The Journal*. A psychiatrist, Doctor Stewart graduated from the University of Louisville in 1946, is a member of the American Psychiatric Association, and is Chairman of the KMA Committee on Physician's Health.

McHenry S. Brewer, M.D., Louisville

Doctor Brewer is serving his second year as Assistant Editor for the *Journal of the Kentucky Medical Association*. A surgeon, Doctor Brewer attended the University of Louisville School of Medicine and was President of the Jefferson County Medical Society in 1972-73. He is a fellow of the American College of Surgeons and a member of the Southern Surgical Association.

KMA DISTRICT TRUSTEES 1983-1984 Associational Year



1. JOHN D. NOONAN, M.D.
Paducah
2. ALBERT H. JOSLIN, M.D.
Owensboro
3. HENRY R. "HANK" BELL, M.D.
Elton
4. THOMAS R. TAYLOR, M.D.*
Elizabethtown
5. BOB M. DEWEESE, M.D.
Louisville
6. NELSON B. RUE, M.D.*
Bowling Green
7. WILLIAM P. MCELWAIN, M.D.
Lawrenceburg
8. ROBERT E. SMITH, M.D.
Covington
9. R. KENDALL BROWN, M.D.
Georgetown
10. RICHARD F. HENCH, M.D.
Lexington
11. DON E. CLOYS, M.D.
Richmond
12. DANNY M. CLARK, M.D.
Somerset
13. GARNER E. ROBINSON, M.D.
Ashland
14. RONALD D. HALL, M.D.
Pikeville
15. DONALD C. BARTON, M.D.†
Corbin

*Member, KMA Executive Committee
†Chairman, KMA Board of Trustees

KMA Delegates

ADAIR

Millard C. Loy, M.D., Columbia

ALLEN

Earl P. Oliver, M.D., Scottsville

ANDERSON

BALLARD

Glenn D. Baird, M.D., Bandana

BARREN

Daryl P. Harvey, M.D., Glasgow

BATH

BELL

Robert B. Matheny, M.D.,
Middlesboro

Charles C. Moore, Jr., Middlesboro

BOONE

Herbert B. Francis, M.D.,
Florence

Donald J. Swikert, M.D., Florence

BOURBON

William H. Cox, M.D., Paris

BOYD

Walter L. Cawood, M.D., Ashland

H. B. McWhorter, M.D., Ashland

Lamar C. Meigs, M.D., Ashland

Charles T. Watson, M.D., Ashland

BOYLE

David C. Liebschutz, M.D.,
Danville

Scott B. Scutchfield, M.D., Danville

BRACKEN

Dewey E. Cummins, M.D.,
Brooksville

BREATHITT

H. Price Sewell, III, M.D.,
Jackson

BRECKINRIDGE

BULLITT

James H. Brewer, M.D.,
Shepherdsville

BUTLER

Richard Wan, M.D., Morgantown

CALLOWAY

Charles D. Clark, M.D., Murray

R. Gary Marquardt, M.D., Murray

CAMPBELL-KENTON

Gordon W. Air, M.D., Crestview
Hills

Charles Allnutt, M.D., Edgewood

Carl J. Brueggemann, M.D.,
Covington

Todd M. Cook, M.D., Cold Spring
Thomas L. Heavern, M.D., Highland
Heights

Howard A. Heringer, Jr., M.D., Ft.
Mitchell

Tom Mayer, M.D., Ft. Thomas

William Monnig, M.D., Erlanger

Fred A. Stine, M.D., Highland
Heights

Vincent Ziegler, M.D., Crestview
Hills

CARLISLE

CARROLL

Cecil D. Martin, M.D., Carrollton

CARTER

CASEY

Lewis E. Wesley, M.D., Liberty

CLARK

CLAY

William E. Becknell, Sr., M.D.,
Manchester

CLINTON

Floyd B. Hay, M.D., Albany

CRITTENDEN

CUMBERLAND

Samuel L. Rice, M.D., Burkesville

DAVIESS

James E. Anderson, M.D.,
Owensboro

Angela Jarvis, M.D., Owensboro

Joseph M. Kavolus, M.D.,
Owensboro

Tom Maddox, Jr., M.D., Owensboro

Charles Omar Wilson, Jr., M.D.,
Owensboro

EDMONSON

Omkar N. Bhatt, M.D.,
Brownsville

ELLIOTT

Brown L. Adkins, M.D., Sandy
Hook

ESTILL

FAYETTE

John R. Allen, M.D., Lexington

Robert P. Belin, M.D., Lexington

William E. Blackburn, Jr., M.D.,
Lexington

Peter P. Bosomworth, M.D.,
Lexington

John D. Cronin, M.D., Lexington

Michael E. Daugherty, M.D.,
Lexington

Harold T. Faulconer, M.D.,
Lexington

Ardis D. Hoven, M.D., Lexington

Thomas M. Jarboe, M.D., Lexington

Van R. Jenkins, M.D., Lexington

Dennis B. Kelly, M.D., Lexington

Priscilla A. Lynd, M.D., Lexington

Sally S. Mattingly, M.D., Lexington

Edgar M. McGee, M.D., Lexington

William R. Meeker, Jr., M.D.,
Lexington

Charles H. Nicholson, M.D.,
Lexington

Edwin J. Nighbert, M.D., Lexington

Preston P. Nunnelley, M.D.,
Lexington

John D. Perrine, M.D., Lexington

Thomas K. Slabaugh, M.D.,
Lexington

John E. Trevey, M.D., Lexington

Gary R. Wallace, M.D., Lexington

FLEMING

Robert W. Fidler, M.D.,
Flemingsburg

FLOYD

FRANKLIN

John Gergen, M.D., Frankfort

George Hromyak, M.D., Frankfort

Willis P. McKee, Jr., M.D.,
Frankfort

FULTON

Robert T. Peterson, M.D., Fulton

GALLATIN

GARRARD

Paul J. Sides, M.D., Lancaster

GRANT

GRAVES

C. Douglas Leneave, M.D.,
Mayfield

GRAYSON

Victor F. Duvall, M.D., Clarkson

GREEN

Kenneth J. DeSimone, M.D.,
Greensburg

GREENUP

Manuel S. Garcia, M.D., Ashland

HANCOCK

HARDIN-LARUE

Clyde Brassfield, M.D.,
Elizabethtown
William M. Carney, M.D.,
Elizabethtown
Marion A. Douglass, Jr., M.D.,
Magnolia
William R. Handley, M.D.,
Elizabethtown
Lucian Moreman, M.D.,
Elizabethtown

HARLAN

Robert S. Howard, M.D., Harlan
Milo Schosser, M.D., Lynch

HARRISON

Don R. Stephens, M.D.,
Cynthiana

HART

Keene Hill, M.D., Horse Cave

HENDERSON

Kenneth Eblen, M.D., Henderson
John W. McClellan, Jr., M.D.,
Henderson

HICKMAN**HOPKINS**

Wallace R. Alexander, M.D.,
Madisonville
Richard K. Bachman, M.D.,
Madisonville
C. R. Dodds, M.D., Earlington
Robert Emslie, M.D., Madisonville

JACKSON

Philip Curd, M.D., McKee

JEFFERSON

William Stephen Aaron, M.D.,
Louisville
Berel Lee Abrams, M.D., Louisville
Richard D. Allen, M.D., Louisville
Billy F. Andrews, M.D., Louisville
James G. Baker, M.D., Louisville
Arnold M. Belker, M.D., Louisville
Ben M. Birkhead, M.D., Louisville
Jerry B. Buchanan, M.D., Louisville
William C. Buschemeyer, Jr., M.D.,
Louisville
E. Dean Canan, M.D., Louisville
James Childers, M.D., Louisville
Eugene H. Conner, M.D., Louisville
Samuel L. Cooper, M.D., Louisville
Bob M. DeWeese, M.D., Louisville
Arthur J. Donovan, Jr., M.D.,
Louisville
Robert E. Ellis, M.D., Louisville
Larry D. Florman, M.D., Louisville
Gary Fox, M.D., Louisville
Daniel P. Garcia, M.D., Louisville
Lawrence G. Goldberg, M.D.,
Louisville
Robert R. Goodin, M.D., Louisville
Cecil L. Grumbles, M.D., Louisville

John J. Guarnaschelli, M.D.,
Louisville
Walter I. Hume, Jr., M.D., Louisville
Jerome P. Lacy, M.D., Louisville
John A. Lloyd, M.D., Louisville
Theodore N. Lynch, M.D., Louisville
Joseph C. Marshall, Jr., M.D.,
Louisville
Edward N. Maxwell, M.D., Louisville
Russell T. May, M.D., Louisville
Martha T. McCoy, M.D. Louisville
Roy J. Meckler, M.D., Louisville
James P. Moss, M.D., Louisville
Robert L. Nold, Sr., M.D., Louisville
Lynn L. Ogden, II, M.D., Louisville
Hobert L. Pence, M.D., Louisville
C. Kenneth Peters, M.D., Louisville
C. Ray Potts, M.D., Louisville
Barton H. Reutlinger, M.D.,
Louisville
G. Randolph Schrodt, M.D.,
Louisville
Jerry W. Seligman, M.D., Louisville
Robert M. Senese, M.D., Louisville
Judah L. Skolnick, M.D., Louisville
Gerald F. Sturgeon, M.D., Louisville
Walter L. Thompson, Jr., M.D.,
Louisville
Peter L. Thurman, M.D., Louisville
Will W. Ward, M.D., Louisville
Lolita S. Weakley, M.D., Louisville
David H. Winslow, Jr., M.D.,
Louisville
Christopher Howerton, M.D.(IT),
Louisville
Kristie Jones, M.D.(IT), Louisville

JESSAMINE

Phyllis D. Corbitt, M.D., Wilmore

JOHNSON

Jerry D. Fraim, M.D., Paintsville

KNOTT

Warren Grady Stumbo, M.D.,
Hindman

KNOX

Rufino F. Crisostomo, M.D.,
Barbourville

LAUREL

William D. Pratt, M.D., London

LAWRENCE**LEE**

Arnold C. Taulbee, M.D.,
Beattyville

LESLIE

Peter J. Morris, M.D., Hyden

LETCHER

Christopher T. Hass, M.D.,
Whitesburg

LEWIS**LINCOLN**

Charles E. Crase, M.D., Stanford

LIVINGSTON

Thomas R. Brandstetter, M.D.,
Salem

LOGAN

Roy B. McEndre, M.D., Lewisburg

MADISON

William H. Mitchell, M.D.,
Richmond

MAGOFFIN**MARION**

Salem M. George, M.D., Lebanon

MARSHALL

H. W. Ford, M.D., Benton

MARTIN

Gregory D. Wells, M.D., Inez

MASON

Claude Cummins, M.D.,
Washington

MCCRACKEN

C. Dale Brown, M.D., Paducah
James S. Gwinn, Jr., M.D.,
Paducah
Gary L. McMillan, M.D., Paducah
Rolan Myers, M.D., Paducah
Richard D. Smith, M.D., Paducah

MCCREARY**MCCLEAN**

Hugh Wilhite, M.D., Calhoun

MEADE**MENIFEE****MERCER**

George W. Noe, M.D.,
Harrodsburg

METCALFE

L. P. Emberton, M.D., Edmonton

MONROE

James E. Carter, M.D.,
Tompkinsville

MONTGOMERY

William H. McKenna, M.D., Mt.
Sterling (NM)

MORGAN**MUHLBERG**

William L. Miller, M.D., Greenville

NELSON

Charles B. Spalding, M.D.,
Bardstown

NICHOLAS

Wendell R. Kingsolver, M.D.,
Carlisle

OHIO**OWEN****OWSLEY**

Mildred B. Gabbard, M.D.,
Booneville

PENDLETON

Robert L. McKenney, M.D.,
Falmouth

PENNYRILE**CALDWELL**

Ralph L. Cash, Jr., M.D.,
Princeton

CHRISTIAN

Charles A. Barlow, M.D.,
Hopkinsville
Frank R. Pitzer, M.D., Hopkinsville
James F. Rozelle, M.D., Hopkinsville

LYON**TODD**

Jessie C. Woodall, M.D., Trenton

TRIGG

Hira Roy, M.D., Cadiz

PERRY**PIKE**

James R. Pigg, M.D., Pikeville
Alex Poulos, M.D., Pikeville
Mary L. Wiss, M.D., Pikeville

POWELL**PULASKI**

Veryl F. Frye, Jr., M.D.,
Somerset
William T. Watkins, M.D., Somerset

ROBERTSON**ROCKCASTLE****ROWAN****RUSSELL**

James E. Moning, M.D., Jamestown

SCOTT

Larry Jones, M.D., Georgetown

SHELBY-HENRY-OLDHAM

Robert L. Houston, M.D.,
Eminence
Willis P. McKee, Sr., M.D.,
Shelbyville

SIMPSON**SPENCER**

William K. Skaggs, M.D.,
Taylorsville

TAYLOR**TRIMBLE**

Roderick H. MacGregor, M.D.,
Bedford

UNION**WARREN**

Jerry W. Martin, M.D., Bowling
Green
Paul J. Parks, M.D., Bowling Green
James O. Willoughby, M.D., Bowling
Green

WASHINGTON

Brian F. Wells, M.D., Springfield

WAYNE**WEBSTER****WHITLEY**

R. D. Pitman, M.D., Williamsburg
Carmel Wallace, Jr., M.D., Corbin

WOLFE

Paul F. Maddox, M.D., Campton

WOODFORD**U of L Student Delegate**

Gary E. Loyd, Louisville

U of K Student Delegate

Gwen Cambron, Lexington

Reference Committee Activity

Speaker Peter C. Campbell, Jr., M.D., Louisville, will assign all officers' and committees' reports and resolutions to one of six Reference Committees at the first meeting of the KMA House of Delegates at 9:00 a.m., Monday, September 17. A brief session for Reference Committee Chairmen will be held at 12:30 p.m., Monday, in the Atlanta Room in the Hyatt Regency Hotel. Any KMA member wishing to testify on any resolution or report is urged to be present for the Reference Committee meetings which will be held at 2:00 p.m., Monday, September 17, in the Lexington Center. These open sessions will last at least one hour, in order for all who wish to speak to be heard. Following the open hearings, the Committees will go into executive sessions to study the reports, review the testimony, and write their reports to the House.

The Committees' recommendations will be presented at the final meeting of the House, Wednesday evening,

September 19, in the Regency Ballroom of the Hyatt Regency Hotel.

As Speaker of the House Delegates, Doctor Campbell is in the process of finalizing appointments to the six Reference Committees, Credentials Committee, and Tellers Committee.

If your society has not yet submitted the name of your Delegate(s) to the Headquarters Office, you should do so immediately, as only those names recorded in the office can be considered for appointment to one of these important committees.

A complete listing of members who will be serving on the six Reference Committees and the location of the Reference Committee meetings will be published in the September issue of the KMA Journal.

Anyone desiring names of Reference Committee members before the September issue is published should contact the Headquarters Office.

Election of Trustees and Alternate Trustees

The House of Delegates will elect five District Trustees and five Alternate Trustees at its second regular meeting, Wednesday, September 19. Nominations will be made by the Delegates from the electing Districts at a meeting following the first meeting of the House on Monday, September 17.

The Nominating Committee will report at the close of the first scientific session on Tuesday, September 18. Further nominations may be made from the floor at the final meeting of the House on Wednesday evening, September 19. All nominations are considered and acted upon by the Delegates at this final meeting.

Districts electing Trustees for three-year terms are: **FIFTH DISTRICT** (incumbent, Bob M. DeWeese, M.D., Louisville); **SIXTH DISTRICT** (incumbent, Nelson B. Rue, M.D., Bowling Green); **EIGHTH DIS-**

TRICT (incumbent, Robert E. Smith, M.D., Covington); **ELEVENTH DISTRICT** (incumbent, Don E. Cloys, M.D., Richmond); and the **FIFTEENTH DISTRICT** (incumbent, Donald C. Barton, M.D., Corbin).

Districts electing Alternate Trustees are the same as those electing Trustees. Incumbents are: E. Dean Canan, M.D., Louisville, 5th District; J. Michael Pulliam, M.D., Franklin, 6th District; William R. Yates, M.D., Crescent Springs, 8th District; Clifford F. Kerby, M.D., Berea, 11th District; and Emanuel H. Rader, M.D., Pineville, 15th District.

Trustees and Alternate Trustees in the 5th, 6th, 8th, and 11th Districts are eligible for re-election, while both the Trustee and Alternate in the 15th District have served two full, consecutive terms and are not eligible for re-election.

Official Call

KMA Annual Meeting

To the officers and members of the component and county medical societies of the Kentucky Medical Association.

Meeting Place

The Annual Meeting of KMA will convene on Tuesday, Wednesday, and Thursday, September 18, 19, 20, at the Hyatt Regency/Lexington Convention Center. The first general session will be called to order at 8:50 a.m., Tuesday.

The House of Delegates

The first regular session of the House of Delegates will convene at 9:00 a.m., Monday, September 17, in the Regency Ballroom of the Hyatt Regency Hotel. The second regular business session will begin at 6 p.m., Wednesday, September 19, in the Regency Ballroom.

Registration

The registration desk will be open for Delegates in the Foyer of the Regency Ballroom of the Hyatt Regency Hotel at 8 a.m. Monday, September 17 and at 5 p.m. Wednesday, September 19. General registration will be held in the lobby of the Lexington Convention Center from 8 a.m. to 5 p.m., Tuesday and Wednesday, and 8 a.m. to 3:30 p.m. on Thursday.

Nominating Committee to Meet Monday, September 17

The KMA Nominating Committee will hold an open meeting at the close of the first meeting of the House of Delegates, Monday, September 17, in the Regency Ballroom of the Hyatt Regency Hotel. Any KMA member may confer with the Committee during this meeting.

The report of the Nominating Committee will be posted in the general assembly hall at the conclusion of the first general session, Tuesday morning, September 18.

Nominations may be made from the floor during the second meeting of the House of Delegates, Wednesday evening, September 19. The House will vote on the nominees at the close of this session.

Members of the Committee are: Jerry W. Martin, M.D., Bowling Green, Chairman; James S. Brashear, M.D., Central City; C. Dale Brown, M.D., Paducah; E. Dean Canan, M.D., Louisville; and Paul J. Sides, M.D., Lancaster.

Nominations should be sent before the Annual Meeting to the KMA Headquarters Office, Attention, Nominating Committee.

House to Elect New Officers During Annual Meeting

KMA officers for the 1984-85 Association year will be elected by the House of Delegates at the close of its final meeting, Wednesday evening, September 19. Officers to be elected from the state at large are:

Office	Term
President-Elect	One Year
Vice President	One Year
Secretary-Treasurer	Three Years
*S. Randolph Scheen, M.D., Louisville	
Delegates to the AMA	Two Years
*Harold D. Haller, M.D., Louisville	
*Dwight L. Blackburn, M.D., Berea	
Alternate Delegates to the AMA	Two Years
*Kenneth P. Crawford, M.D., Louisville	
*Russell L. Travis, M.D., Lexington	

*Incumbent

Annual Meeting Special Features

SCIENTIFIC SESSIONS are scheduled for September 18, 19, and 20 at the Hyatt Regency/Lexington Convention Center. The theme for the 1984 scientific session is "Sports Medicine." Both the presentations and discussion periods will contribute to the continuing medical education of Kentucky's physicians.

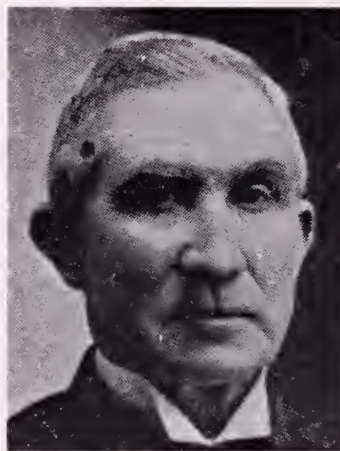
TWENTY SPECIALTY GROUPS will hold meetings on the afternoons of September 18 and 20. Beginning at 1:30 p.m., the meetings will be held in the Hyatt Regency/Lexington Convention Center. Individual programs of specialty societies are listed in this issue. No general sessions are scheduled during the specialty group meetings and all KMA members are invited to attend any specialty meetings.

SCIENTIFIC AND TECHNICAL EXHIBITS will display new medical products, services and techniques at the Lexington Convention Center during the 1984 Annual Meeting. Members and guests are urged to take the opportunity to view products of interest at the 30-minute intermissions scheduled during each general and specialty session.

THE KMA HOUSE OF DELEGATES will meet twice during the Annual Meeting. The first session of the House will be held at 9 a.m., Monday, September 17, in the Regency Ballroom, of the Hyatt. The final session will be held Wednesday, September 19, at 6 p.m., in the Regency Ballroom also. Officers for the 1984-85 Associational year will be elected at the second session.

THE PRESIDENT'S LUNCHEON will feature Joseph F. Boyle, M.D., President of the AMA, on Wednesday, September 19, in the Patterson Ballroom of the Hyatt. The Luncheon also will include the presentation of KMA awards and the installation of the 1984-85 KMA President, Charles C. Smith, Jr., M.D.

1984 Annual Meeting To Honor Past President Bailey



The 1984 Annual Meeting of the Kentucky Medical Association will be officially titled, "The Steele Bailey Meeting" in remembrance of the 1904 President of the Association.

The tradition of honoring a past president of KMA and other distinguished physicians originated at the 1935 Annual

Meeting.

Eugene H. Conner, M.D., Louisville, KMA Historian, has written a biography on Doctor Bailey for the Annual Meeting program booklet to be distributed during the meeting in Lexington, September 17-20.

YOU ARE INVITED TO ATTEND

KEMPAC SEMINAR

Monday, September 17, 1984

6:00 p.m. EDT — Reception

7:00 p.m. — Dinner with program to follow

Hyatt Regency

Lexington, Kentucky

featuring

Walter “Dee” Huddleston (D) Elizabethtown

Mitch McConnell (R) Louisville

Candidates for the U. S. Senate

James S. Brashear, M.D., Central City, Kentucky, KEMPAC Chairman, urges you to get your tickets early. The price is \$25.00 each and can be purchased from a KEMPAC director or complete the coupon below and mail with your check to KEMPAC, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Name _____ Address _____

Please send _____ tickets (8 spaces at a table). Enclosed is my check for \$_____

1984 Annual Meeting Program Summary

Kentucky Medical Association

September 16, 17, 18, 19, and 20

Hyatt Regency/Lexington Convention Center

SUNDAY, SEPTEMBER 16

12:30 p.m. KMA Board of Trustees Lunch & MeetingHyatt Suite

MONDAY, SEPTEMBER 17

9:00 a.m. First Meeting, KMA House of DelegatesRegency Ballroom, Hyatt
12:30 p.m. Luncheon, Reference Committee Chairmen Atlanta Room, Hyatt
1:00 p.m. Auxiliary Committee Meetings Regency Ballroom, West
2:00 p.m. Reference Committee Meetings Lexington Center, Rooms A, B, C, D, E, and F
6:00 p.m. KEMPAC Reception & DinnerPatterson Ballroom, Hyatt

TUESDAY, SEPTEMBER 18

7:00 a.m. Maternal Mortality Committee Atlanta Room, Hyatt
8:00 a.m. Registration Lexington Convention Center
8:50 a.m. Opening CeremoniesBallrooms 3 & 4, Lexington Center
9:00 a.m. First Scientific SessionBallrooms 3 & 4, Lexington Center
12:00 noon Luncheon Meeting, Executive Committee and Reference
Committee Chairmen Atlanta Room, Hyatt
12:00 noon Luncheon, Past Presidents & Board Chairmen Chicago Room, Hyatt
1:30 p.m. Specialty Group Sessions, Lexington Convention Center and Hyatt Regency (Twelve Specialty Groups will meet simultaneously
at this time. Their programs being on page 413)
5:30 p.m. Reception Honoring Charles C. Smith Jr., M.D., and
Adelyn Spalding Regency Ballroom East, Hyatt

WEDNESDAY, SEPTEMBER 19

8:50 a.m. Second Scientific SessionBallrooms 3 & 4, Lexington Center
11:50 a.m. President's LuncheonPatterson Ballroom, Hyatt
2:00 p.m. Third Scientific SessionBallrooms 3 & 4, Lexington Center
3:00 p.m. Board of Trustees Meeting and Dinner (5 p.m.)Hyatt Suite
6:00 p.m. Second Meeting, KMA House of DelegatesRegency Ballroom, Hyatt

THURSDAY, SEPTEMBER 20

8:50 a.m. Fourth Scientific SessionBallrooms 3 & 4, Lexington Center
12:00 noon Luncheon Meeting, Board of TrusteesHyatt Suite
1:30 p.m. Specialty Group Sessions, Lexington Center and Hyatt Regency (Eight Specialty Groups will meet simultaneously at this time.
Their programs begin on page 418)

A 30-minute intermission has been scheduled during each morning and
afternoon Scientific Session for visiting
Scientific and Technical Exhibits

The Kentucky Medical Association SCIENTIFIC PROGRAM Steele Bailey Memorial Meeting Hyatt Regency/Lexington Convention Center

"Sports Medicine"

TUESDAY, SEPTEMBER 18

MORNING GENERAL SESSION

Ballrooms 3 & 4 - Lexington Center

James B. Holloway, Jr., M.D.

KMA President, Presiding

- 8:15 a.m.** Movie or Demonstration
- 8:50 a.m.** Opening Ceremonies
- 9:00 a.m.** "Use of Local Anesthesia in Acute Injuries"
F. Peter Buckley, M.B., B.S., Seattle, Washington
- 9:20 a.m.** "Special Considerations for the Female Athlete Menses & Pregnancy"
William R. Keye, Jr., M.D., Salt Lake City, Utah
- 9:40 a.m.** "Pre-Season Sport Exams for Children & Adolescents"
Thomas E. Shaffer, M.D., Columbus, Ohio
- 10:00 a.m.** Intermission to Visit Exhibits
- 10:30 a.m.** "Cerebral Concussion"
Dwight Parkinson, M.D., Manitoba, Canada
- 10:50 a.m.** "Heat Disorders in Athletes"
Charles R. Baxter, M.D., Dallas, Texas
- 11:10 a.m.** "Genito-Urinary Tract Athletic Injuries"
Lester Persky, M.D., Cleveland, Ohio
- 11:30 a.m.** "Asthma & The Athlete"
Dick D. Briggs, Jr., M.D., Birmingham, Alabama

AFTERNOON SESSION

SPECIALTY GROUP MEETINGS

**Kentucky Society
of Anesthesiologists**

Ballroom #3 - Lexington Center

- 1:30 p.m.** "Recent Advances in the Management of Pain & Pain Syndromes"
F. Peter Buckley, M.D., Seattle, Washington

F. PETER BUCKLEY, M.B., B.S. Seattle, Washington

Assistant Professor of Anesthesiology, University of Washington School of Medicine, Seattle, Washington. M.B., B.S., 1968, Medical College of St. Bartholomew's Hospital, London. Chairman, Ad Hoc Committee on Faculty Teaching and Assessment, Department of Anesthesiology, University of Washington. Member, American Society of Anesthesiology and American Society of Regional Anesthesiology; National Anesthesiology Research Society.



WILLIAM R. KEYE, JR., M.D. Salt Lake City, Utah

Chief, Division of Reproductive Endocrinology, Department of Obstetrics and Gynecology, University of Utah; Assistant Professor, Department of Obstetrics and Gynecology, University of Utah College of Medicine. M.D., 1969, University of Minnesota. Fellow, American College of Obstetrics and Gynecology and American Fertility Society. Member, Utah Obstetrics and Gynecology Society; American Association of Gynecologic Laparoscopists; American Association of Sex Educators, Counselors and Therapists. Awarded Ephraim McDowell prize for clinical research in 1977.



THOMAS E. SHAFFER, M.D.
Columbus, Ohio



Professor Emeritus, Department of Pediatrics, College of Medicine, The Ohio State University and Chairman, Committee on Sports Medicine, American Academy of Pediatrics. M.D., Cornell University Medical College. Past member and Chairman, Committee on the Medical Aspects of Sports of the American Medical Association; Associate Team Physician, Athletic Department, the Ohio State University, 1974-75; Head Team Physician, Womens Intercollegiate Athletics, the Ohio State University, 1973-75.

DWIGHT PARKINSON, M.D.
Winnipeg, Manitoba, Canada



Professor of Neurosurgery, University of Manitoba; Faculty of Medicine, Department of Neurosurgery, University of Manitoba. M.D., McGill University, Montreal 1941. Secretary, Winnipeg Medical Historical Society; President, Neurosurgery Subdivision, World Federation of Neurosciences, Board of Governor's, American College of Surgeons. Member Royal College Committee for Neurosurgery.

CHARLES R. BAXTER, M.D.
Dallas, Texas



Professor of Surgery, The University of Texas (Southwestern) Medical School, Director, Parkland Burn Center, Dallas; Medical Director, Skin Transplant Center for Burns and Transplant Services. M.D., 1954, The University of Texas (Southwestern) Medical School of Dallas. President, American Association of Tissue Banks; Former President, American Association for the Surgery of Trauma and American Board Association. Member, American College of Surgeons and American Medical Association.

- 2:00 p.m.** "Mass Spectrometry: The Ultimate Patient Monitor or an Expensive Toy?"
Edwin S. Munson, M.D., Lexington
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "Recent Advances in Pediatric Anesthesia"
Staffan I. Sjogren, M.D., Louisville
- 3:30 p.m.** "Hyperbaric Medicine"
William O. Whitt, M.D., Lexington

Kentucky Chapter
American College of Chest Physicians
Meeting Room E - Lexington Center

- 1:30 p.m.** "Sarcoidosis: Modern Controversies"
Dick D. Briggs, Jr., M.D., Birmingham, Alabama
- 2:15 p.m.** "Exercise and Hypertension"
Charles P. Tifft, M.D., Boston, Massachusetts
- 3:00 p.m.** Intermission to Visit Exhibits
- 3:30 p.m.** "Inhaled Bronchodilators"
Barbara Phillips, M.D., Lexington
- 3:45 p.m.** "Coronary Balloon Angioplasty"
David C. Booth, M.D., Lexington
- 4:00 p.m.** "Oxygen Toxicity"
Graham C. Scott, M.D., Lexington
- 4:15 p.m.** "Acute Aortic Dissection"
Gary Earle, M.D., Lexington

Kentucky Chapter
American College of Emergency Physicians
Meeting Room F - Lexington Center

- 1:30 p.m.** "Reimbursement Issues in Emergency Medicine"
Michael Ervin, M.D., Dayton, Ohio
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** Topic to be Announced

- Kentucky Neurosurgical Society**
Meeting Room A - Lexington Center
- 1:30 p.m.** "Introduction of Dwight Parkinson, M.D." by
Christopher Shields, M.D.
 - 1:45 p.m.** "Intracranial Vascular Disorders"
Dwight Parkinson, M.D., Manitoba, Canada
 - 2:15 p.m.** "Ten-Year Experience with Ependymomas"
E. Joy Arpin, M.D.; Christopher B. Shields, M.D.; Henry D. Garretson, M.D., Louisville
 - 2:30 p.m.** "Reversal of Fixed Hemiplegia Due to Middle Cerebral Artery Occlusion by Delayed ST-MCA Bypass Graft"
James B. Macon, M.D., Louisville
 - 2:45 p.m.** "Surgical Management of Epilepsy"
Henry D. Garretson, M.D.; Kunnathu P. Geevarghese, M.D., Louisville
 - 3:00 p.m.** "A Radiolucent Stretcher Which Facilitates the Evaluation of Spinal Fractures"
Richard K. Jelsma, M.D., Louisville
 - 3:15 p.m.** Intermission to Visit Exhibits
 - 3:30 p.m.** "Failure of Disk Injection - Judgement Error or Chymopapain Failure"
Timir Banerjee, M.D., Louisville

Annual Meeting Program

- 3:45 p.m.** "Internal Stabilization with Postero-lateral Fusion in Painful Low Back Syndromes"
Frank P. Holladay, M.D.; H. Brooks Morgan, M.D.; Russell L. Travis, M.D., Lexington
- 4:00 p.m.** "The Place of Cervical Spine Injuries in Multiple Trauma"
Steve Reiss, M.D.; George Raque, M.D.; Christopher B. Shields, M.D.; Henry D. Garretson, M.D., Louisville
- 4:15 p.m.** "Surgical Approaches to Cervical Disc Disease: A Comparison Study of 500 Cases"
John J. Guarnaschelli, M.D.; A. J. Dzenitis, M.D., Louisville
- 4:30 p.m.** "Craniofacial Reconstruction: Case Report"
David G. Changaris, M.D., Louisville
- 4:45 p.m.** "Systemic Metabolic Changes Following Head Injury"
Byron Young, M.D., Lexington
- 5:00 p.m.** Business Meeting

Kentucky OB-GYN Society Kentucky Section ACOG

Meeting Room B - Lexington Center

- 1:30 p.m.** "Gynecologic Problems of Athletes"
Joseph S. Sanfilippo, M.D., Louisville
- 2:00 p.m.** "Obstetrical Problems of Athletes"
Larry P. Griffin, M.D., Louisville
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "In Vitro Fertilization"
Christine L. Cook, M.D., Louisville
- 3:30 p.m.** "Sexual Dysfunction in the OB-GYN Patient"
William R. Keye, Jr., M.D., Salt Lake City, Utah

Kentucky Orthopaedic Society Ballroom #4 - Lexington Center

- 1:30 p.m.** "Malpractice Prophylaxis"
Audio Visual, KMIC
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "External Fixation in Distal Radial Fractures"
James E. Carothers, M.D., Owensboro
- 3:20 p.m.** "The 'Jammed' Digits of the Athlete"
Robert L. Reid, M.D., Owensboro
- 3:40 p.m.** "The Knee, Past, Present, and Future"
John A. Feagin, Jr., M.D., Jackson, Wyoming

Kentucky Society of Pathologists Neville Room - Hyatt Regency

- 1:30 p.m.** "Modern Medicolegal Investigations"
Charles S. Petty, M.D., Dallas, Texas
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** Topic to be announced

LESTER PERSKY, M.D. Cleveland, Ohio

Clinical Professor of Urology, Case Western Reserve School of Medicine; Director of Urology, Cleveland Metropolitan General Hospital and Veteran's Administration Hospital. M.D., 1944, Johns Hopkins University School of Medicine. Member, Cleveland Surgical Society; American Pediatric Association; American Urological Association; President-Elect, Ohio Urological Association.



DICK D. BRIGGS, JR., M.D. Birmingham, Alabama

Professor and Vice Chairman Department of Medicine; Director, Division of Pulmonary and Critical Care Medicine, University of Alabama at Birmingham. M.D., 1960, Washington University School of Medicine. Member, University of Alabama Hospitals Executive Committee; Finance Committee, University of Alabama Health Services Foundation; Coordinator, National Residency Matching Program for Respiratory Disease. Fellowships; American College of Chest Physicians; Southern Medical Association and AMA.



CHESTER M. PIERCE, M.D. Cambridge, Massachusetts

Professor of Education and Psychiatry, Faculty of Medicine, Graduate School of Education and the Faculty of Public Health, Harvard University. Psychiatrist, Massachusetts General Hospital, Boston and Massachusetts Institute of Technology, Cambridge. M.D., 1952, Harvard Medical School. Former President, American Board of Psychiatry and Neurology; Chairman, Ad Hoc Committee on Polar Biomedical Research; National Research Council; Editorial Board, *American Journal of Psychiatry*, *Journal of Clinical Psychiatry*, and *The Physician and Sports Medicine*. Member, Institute of Medicine at the National Academy of Sciences, Washington, D.C.



GEORGE PODGORNÝ, M.D.
Winston-Salem, North Carolina



Clinical Professor Emergency Medicine, Eastern Carolina University School of Medicine, Greenville, North Carolina; Associate Professor of Clinical Surgery, Bowman Gray School of Medicine of Wake Forest University. Chairman, Section Council of Emergency Medicine, American Medical Association; Chairman, Section on Emergency Medicine, Pan American Medical Association; Fellow, Royal Society of Health, London.

MICHAEL E. JABALEY, M.D.
Jackson, Mississippi



Director, American Board of Plastic Surgery; Clinical Professor of Surgery, University of Mississippi. Member, American Society for Surgery of the Hand; Scientific and Technical Exhibit Committee and Membership Committee. M.D., 1961, Johns Hopkins School of Medicine, Baltimore.

JOHN A. FEAGIN, M.D.
Jackson, Wyoming



Orthopaedic Surgeon, St. Johns Hospitals, and Board of Trustees, U.S. Military Academy, Jackson Wyoming. M.D., 1961, Duke University School of Medicine. Member, American Academy of Orthopaedic Surgeons; American College of Surgeons; Founding Member, American Orthopaedic Society for Sports Medicine and Society of Military Orthopaedic Surgeons. Editorial Board, *Journal of Arthroscopic Surgery* and President-Elect, American Orthopaedic Society for Sports Medicine

Kentucky Chapter
American Academy of Pediatrics

Patterson Ballroom A - Hyatt Regency

- 1:30 p.m.** "Critical Issues in Sports Medicine for the Pediatrician"
Thomas E. Shaffer, M.D., Columbus, Ohio
- 2:15 p.m.** "Mistakes We Make in Treating Young Athletes"
Robert N. McLeod, Jr., M.D., Somerset
- 2:45 p.m.** Question and Answer Session
- 3:00 p.m.** Intermission to Visit Exhibits
- 3:30 p.m.** "Use, Misuse and Abuse of Drugs in Athletics"
Kenneth N. Schikler, M.D., Louisville
- 4:00 p.m.** "Cardiac Evaluation for Sports Participation"
Gregory Johnson, M.D., Lexington

Kentucky Society for
Plastic and Reconstructive Surgery
Meeting Room C - Lexington Center

- 1:30 p.m.** "Ephraim McDowell: Doctor of the Kentucky Frontier"
Sharon Romm, M.D., Lexington
- 1:40 p.m.** "Rhinoplasty: A 10-Year Private Practice Review"
Raleigh Archer, M.D., Lexington
- 1:50 p.m.** "Microsurgical Aspects of Wound Healing"
Joseph C. Banis, Jr. M.D., Louisville
- 2:00 p.m.** "Suction Assisted Lipectomy, A New Alternative In Body Contouring"
Norman Cole, M.D., Louisville
- 2:15 p.m.** "Complex Maxillary Fractures"
Edward Luce, M.D., Lexington
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "Advances in Hand Surgery"
Michael Jabaley M.D., Jackson, Mississippi
- 3:20 p.m.** "Use of Pectoralis Major Myocutaneous Flaps In Palliative Head and Neck Surgery"
Phillip K. Blevins, M.D., Lexington
- 3:30 p.m.** "The Closure of Sensitized and Non-Sensitized Blood Vessels Utilizing The Tunable Dye Laser"
Ronald Kasper, M.D., University of Kentucky
- 3:40 p.m.** University of Louisville

Kentucky Psychiatric Association
Patterson Ballroom B - Hyatt Regency

- 1:30 p.m.** "Emotional Aspects of Training"
Chester Pierce, M.D., Cambridge, Massachusetts

Annual Meeting Program

- 2:00 p.m.** "Motor Proficiency in Adolescent Inpatients
Neuro-psychiatric Clinical & Biochemical
Correlates"
Laurie Humphries, M.D., Lexington
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "Psychiatric Aspects of Sports Medicine"
G. Randolph Schrodt, Jr., M.D., Louisville
- 3:30 p.m.** Business Meeting

Kentucky Chapter American College of Surgeons Ballroom #2 - Lexington Center

- 1:30 p.m.** "What's New In Burns?"
Charles R. Baxter, M.D., Dallas, Texas

Kentucky Urological Association Meeting Room D - Lexington Center

- 1:30 p.m.** "Percutaneous Surgical Experiences —
Pluses and Minuses"
Lester Persky, M.D., Cleveland, Ohio
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "Pyelogram Conference"
Lester Persky, M.D., Cleveland, Ohio

Wednesday, September 19 Morning General Session Ballrooms 3 & 4 - Lexington Center

Wally O. Montgomery, M.D.

KMA Vice President, Presiding

- 8:15 a.m.** Movie or Demonstration
- 9:00 a.m.** "Emotional Aspects of Training"
Chester Pierce, M.D., Cambridge, Massachusetts
- 9:20 a.m.** "Initial Care of Selected Sports Emergencies"
George Podgorny, M.D., Winston-Salem, North Carolina
- 9:40 a.m.** "Athletic Injuries To The Hand"
Michael E. Jabaley, M.D., Jackson, Mississippi
- 10:00 a.m.** "The Diagnosis of Knee Injuries in Athletes"
John A. Feagin, Jr., M.D., Jackson, Wyoming
- 10:20 a.m.** Intermission to Visit Exhibits
- 10:50 a.m.** "Sudden Death in the Healthy Athlete —
Why?"
Charles S. Petty, M.D., Dallas, Texas
- 11:10 a.m.** "Ankle Injuries"
Jack Edeiken, M.D., Philadelphia, Pennsylvania
- 11:30 a.m.** "Newer Equipment & Methodology in Prevention of Sports Injuries"
Timothy Ned Taft, M.D., Chapel Hill, North Carolina
- 11:50 a.m.** President's Luncheon

August 1984

CHARLES S. PETTY, M.D. Dallas, Texas

Director, Southwestern Institute of Forensic Sciences at Dallas; Director, Dallas County Criminal Investigation Lab; Director, Dallas County Rape Crises Center; Chief Medical Examiner, Dallas County and Professor of Pathology and Forensic Sciences, University of Texas Southwest Medical School at Dallas. M.D., 1950, Harvard Medical School. Editorial Consultant, *Journal of Police Science and Administration*. Former President, American Academy of Forensic Sciences. Member, Texas Academy of Science; Texas Medical Association; AMA; Fellow, American Association for Advancement of Science; Advisory Board member, Treatment Alternatives to Street Crime, Dallas County.



JACK EDEIKEN, M.D. Philadelphia, Pennsylvania

Professor and Chairman, Department of Radiology, Thomas Jefferson University Hospital. M.D., 1947, University of Pennsylvania School of Medicine. President, National Skeletal Society; Chairman, Commission of Diagnostic Radiology; Editor in Chief, *Skeletal Radiology* Journal of the International Skeletal Society. Member, Board of Trustees for the American Board of Radiology; AMA; Pennsylvania Radiology Society; American College of Radiology.



TIMOTHY N. TAFT, M.D. Chapel Hill, North Carolina

Associate Professor, Director, Orthopaedic Sports Medicine, Division of Orthopaedic Surgery School of Medicine, University of North Carolina and Varsity Teams Orthopaedic Surgeon, University of North Carolina. M.D., 1969, University of Missouri. Team Physician, 1979, USA Panamerican Team; 1980, USA Olympic Team; 1981, Head Physician, USA World University Games Team; Team Physician, 1982, USA Basketball Team; and 1983, USA Swimming Team.



DONALD L. COOPER, M.D.
Stillwater, Oklahoma



Director, Oklahoma State University Health Center; Team physician, Oklahoma State University. M.D., 1953 University of Kansas School of Medicine, Kansas City, Kansas. Member, American College of Sports Medicine; Past President, American College Health Association; Medical Commission of International Federation of Body Builders; Oklahoma State Medical Association's Committee on Alcoholism and Drug Abuse. Former team physician, United States Olympic Team XIX Olympiad, Mexico City, 1968.

E. PAUL MacCARTHY, M.D.
Cincinnati, Ohio



Assistant Professor of Medicine; Director, Hypertension Program, Department of Internal Medicine, University of Cincinnati Medical Center. Director, Cincinnati Blood Pressure Program. M.B., B.C.h., B.A.O., University College Dublin, Dublin, Ireland. Member, Royal College of Physicians, Ireland; American Federation for Clinical Research; American Association of University Professors; American Medical Association; and International Society of Nephrology. of Sciences, Washington, D.C.

JAMES R. ANDREWS, M.D.
Columbus, Georgia



Specialist, Sports Medicine, Hughston Orthopaedic Clinic, P.C., Columbus, Georgia. Chief of Orthopaedics, St. Francis Hospital, Columbus, Georgia. Treasurer, American Orthopaedic Society of Sports Medicine. M.D., 1967, Louisiana State University School of Medicine. Member, North American Orthopaedic Society; Atlanta Orthopaedic Society; Georgia Medical Association.

PRESIDENT'S LUNCHEON

Patterson Ballroom

Hyatt Regency

11:50 a.m.

*James B. Holloway, Jr., M.D., Lexington
KMA President, Presiding*

Invocation

Recognition

Awards Presentation

*S. Randolph Scheen, M.D., Louisville
Chairman, KMA Awards Committee*

Luncheon Speaker

*Joseph F. Boyle, M.D.
AMA President*

Installation of the New KMA President

Wednesday, September 19

Afternoon General Session

Ballrooms 3 & 4 - Lexington Center

R. Quin Bailey, M.D.

*Chairman, KMA Committee on School Health,
Physical Education and Medical Aspects of
Sports, Presiding*

2:30 p.m. "Preparing the Athlete for Competition"
Donald L. Cooper, M.D., Stillwater, Oklahoma

Thursday, September 20

Morning General Session

Ballrooms 3 & 4 - Lexington Center

James A. Baumgarten, M.D.

*Chairman KMA Scientific Program Committee,
Presiding*

8:15 a.m. Movie or Demonstration

9:00 a.m. "The Use of Beta Blockers in the Exercising Patient"
E. Paul MacCarthy, M.D., Cincinnati, Ohio

9:20 a.m. "Diagnosis of Ligamentous Injuries of the Knee"
James Andrews, M.D., Columbus, Georgia

Annual Meeting Program

- 9:40 a.m.** "Prevention of Eye Injuries in the Athlete"
Paul F. Vinger, M.D., Lexington, Massachusetts
- 10:00 a.m.** "Adolescent Heart Murmurs in Sports"
John A. Lombardo, M.D., Cleveland, Ohio
- 10:20 a.m.** Intermission to Visit Exhibits
- 10:50 a.m.** "Oxygen Metabolism in Phagocytes: Prospects for Therapeutic Manipulation"
Richard B. Johnston, Jr., M.D., Denver, Colorado
- 11:10 a.m.** "Intestinal Gas"
Michael D. Levitt, M.D., Minneapolis, Minnesota
- 11:30 a.m.** "Selected Cutaneous Signs of Systemic Disease"
Edgar B. Smith, M.D., Galveston, Texas

AFTERNOON SESSION SPECIALTY GROUP MEETINGS

Kentucky Society of Allergy and Clinical Immunology

Meeting Room F - Lexington Center

- 1:30 p.m.** "Evaluation of the Patient with Worrisome Infections: Conservation of Money, Time and The Patient's Blood"
Richard B. Johnston, Jr., M.D., Denver, Colorado
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "Prediction and Prevention of Allergy"
John G. Riehm, M.D., Louisville
- 3:30 p.m.** "Environmental Control in Air Filtration"
James L. Sublett, M.D., Louisville

Kentucky Dermatological Society Lexington Clinic East

- 1:30 p.m.** Patient Presentations
- 2:30 p.m.** Intermission
- 3:00 p.m.** Discussion of Cases Presented
Edgar B. Smith, M.D., Galveston, Texas

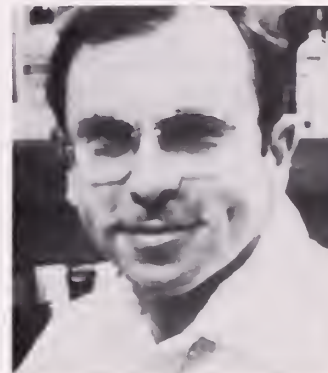
Kentucky Academy of Eye Physicians and Surgeons

Ballroom #3 and 4 - Lexington Center

- 1:30 p.m.** "Blunt Trauma to Mid Face Secondary to Athletic Injury"
John Collins, M.D., Lexington
- 1:50 p.m.** "Treatment of the One-Eyed Athlete"
Paul F. Vinger, M.D., Lexington, Massachusetts
- 2:10 p.m.** "Vitrectomy for Ocular Trauma"
William J. Wood, M.D., Lexington
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "Potentials of Ultraviolet Damage & Protective Hypotheses"
Arthur H. Keeney, M.D., Louisville; Gur C. Singh, M.D., Ph.D., Louisville

PAUL F. VINGAR, M.D. Lexington, Massachusetts

Associate Clinical Professor in Ophthalmology, Harvard Medical School; Assistant in Ophthalmology, Boston University Medical School; Assistant Surgeon in Ophthalmology, Massachusetts Eye and Ear Infirmary. M.D., 1965, New Jersey College of Medicine. Member, New England Ophthalmology Society; Massachusetts Medical Society; American Academy of Ophthalmology; National Society to Prevent Blindness.



JOHN A. LOMBARDO, M.D. Cleveland, Ohio

Team physician, Cleveland State University, Cleveland Cavaliers, Chagrin Falls High School. Medical Consultant, Cleveland Browns. Member, Academy of Family Physicians Education Commission; Recreation Advisory Committee, Cleveland Clinic Foundation and United States Olympic Committee Drug Detection Crew Chief. M.D., 1977, Ohio State University. Member, American Academy of Family Physicians; American College of Sports Medicine; American Medical Association; National Athletic Trainers Association.



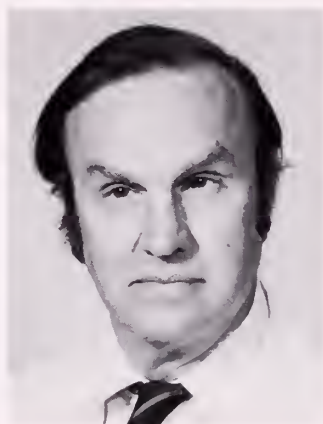
RICHARD B. JOHNSTON, JR., M.D. Denver, Colorado

Chairman, Department of Pediatrics; Professor and Vice Chairman of Pediatrics, University of Colorado School of Medicine. M.D., 1961, Vanderbilt University School of Medicine, Nashville. Member, Association of American Physicians; Society for Pediatric Research; President, 1980-81, American Association of Immunologists; American Society for Clinical Investigation.



MICHAEL D. LEVITT, M.D.
Minneapolis, Minnesota

Associate Chief of Staff for Research, Veterans Administration Medical Center and Professor of Medicine, University of Minnesota. M.D., 1960, University of Minnesota. Member, Central Society for Clinical Research; American Society for Clinical Investigation; Editorial Board, *Gastroenterology* and *Viewpoints of Digestive Diseases*.



EDGAR B. SMITH, M.D.
Galveston, Texas

Professor and Chairman, Department of Dermatology, University of Texas Medical Branch, Galveston. M.D., 1957, Baylor University College of Medicine, Houston. Member, AMA; Association of American Medical Colleges; Association of Military Dermatologists; American Association for Advancement of Sciences and the National Society of Tropical Dermatology.



- 3:15 p.m.** "Does Visual Training Improve Athletic Performance?"
Paul F. Vinger, M.D., Lexington, Massachusetts
- 3:30 p.m.** "A Classic Modern Baseball Injury"
Albert M. Potts, PhD., M.D., Louisville;
Barton L. Ramsey, M.D., Danville
- 3:45 p.m.** "Retinal Trauma Secondary to Sports Injuries"
Kenneth R. Jaegers, M.D., Louisville

Kentucky Chapter
American Academy of Family Physicians
Meeting Room C - Lexington Center

- 1:30 p.m.** "Drugs in Sports"
John A. Lombardo, M.D., Cleveland, Ohio
- 2:00 p.m.** "Intensification of Insulin Management — Who? What? How?"
Frank Vinicor, M.D., Indianapolis, Indiana
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "Multiple Level Goals in Clinical Teaching; an Educational Model in Family Practice"
Forrest W. Calico, M.D., Edgewood
- 3:30 p.m.** "Development of Disease Prevention and Health Promotion in Family Practice"
R. Prasad Steiner, M.D., Louisville

Kentucky Society for
Gastrointestinal Endoscopy
Ballrooms #2 - Lexington Center
Program To Be Announced

Kentucky Occupational Medical Association
Meeting Room A - Lexington Center

- 1:30 p.m.** Topic To Be Announced
James Andrews, M.D., Columbus, Georgia
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "Present Status Preventive Medicine and Occupational Health"
Arthur Frank, M.D., Lexington
- 3:30 p.m.** "What Kentucky Department of Labor Can Do For You"
Richard Predmore, Ind. Hygiene Specialist, Frankfort

Kentucky Chapter
American College of Physicians
Patterson A - Hyatt Regency

- 1:30 p.m.** "Therapy of Obstructive Sleep Apnea"
Barbara A. Phillips, M.D., Lexington
Edward Luce, M.D., Lexington
- 2:00 p.m.** "The Effects of Physical Exertion in the Hypertensive Patient and Their Management"
E. Paul MacCarthy, M.D., Cincinnati, Ohio
- 2:30 p.m.** Intermission to Visit Exhibits
- 3:00 p.m.** "What Happens to Women Who Get Diabetes During Pregnancy?"
David Bybee, M.D., Louisville

Annual Meeting Program

3:30 p.m. "Medical Complications of Gastroesophageal Reflux and Their Diagnosis"
Richard A. Wright, M.D., Louisville

**Kentucky Association of
Public Health Physicians
Meeting Room D - Lexington Center**

1:30 p.m. "Heat Syndromes in Athletes"
*Timothy Ned Taft, M.D., Chapel Hill,
North Carolina*

2:30 p.m. Intermission to Visit Exhibits

3:00 p.m. Program To Be Announced

CONTRIBUTORS 1984 ANNUAL MEETING

MARION LABORATORIES, INC.
P. O. Box 9627
Kansas City, MO 64134

McNEIL PHARMACEUTICAL
14500 S. Outer 40 Road
Suite 310
Chesterfield, MO 63027

PARKE-DAVIS
Division of Warner-Lambert Company
P. O. Box 8
Morrow, GA 30260

**Summaries of
General Sessions
Presentations
1984 KMA
Annual Meeting**

**Selective Cutaneous
Signs of Systemic
Disease**

Edgar B. Smith, M.D.

Cutaneous lesions may provide important clues to the diagnosis of many systemic diseases. The purpose of this presentation is to review with illustrative slides some of these more recently described cutaneous clues. Among the conditions reviewed are a new form of Kaposi's Sarcoma occurring in patients with AIDS, the erythroderma of retrovirus-associated lymphomas, the cutaneous T-cell lymphoma concept of mycosis fungoides and the migratory necrolytic dermatosis of glycogonoma syndrome. In addition to these recently described manifestations of malignancies a group of conditions resulting from the interactions of infectious agents and immune mechanisms such as toxic shock syndrome, toxic epidermal necrolysis, gonococemia and the bowel associated arthritis dermatitis syndrome will be reviewed.

**Ankle Injuries
Jack Edeiken, M.D.**

Injuries to the ankle are usually ligamentous and capsular. Fractures frequently occur, and the diagnosis of the soft tissue injuries can be made by the evaluation of fracture. The fractures will be evaluated from the standpoint of mechanism of injury, and soft tissue ligamentous injury.

**Genito-Urinary Tract
Athletic Injuries
Lester Persky, M.D.**

1. Outline of anatomical considerations
 - a. protected renal sites
 - b. vulnerability of genitalia
2. Review of diagnostic measures available
 - a. examination — physical
 - b. x-ray
 - c. ultrasonography
 - d. CAT scan of abdomen
3. Symptoms of injury
 - a. kidney
 - b. bladder
 - c. urethra
4. Representative cases of injury to these viscera
 - a. diagnostic maneuvers
 - b. management protocols
5. Discussion of conservative versus interventional attitudes of management of renal trauma.
 - a. surgical approaches to the kidney
6. Discussion of surgical techniques available to restore and preserve genitalia.

**Concussion
Dwight Parkinson,
M.D.**

This, the earliest recognized, most common, most dramatic, most consistent, and least understood disturbance of the central nervous system remains shrouded in myths, dogma, and anecdotal authentication as it applies to sports and civilian life. The progressively large settlements, the days lost from employment and leisure, and the lingering uncertainty left in the minds of many patients by physicians' differing advice add progressively to the significance of the subject. It will be discussed under the headings of mechanism, reversibility, and management.

Asthma and the Athlete

Dick D. Briggs, Jr., M.D.

Modern management of the asthmatic patient should result in an individual who has normal respiratory function and whose lifestyle is not limited by the presence of asthma. A better understanding of exertional asthma and the availability of more efficacious pharmacologic agents allow asthmatic patients to participate fully in vigorous physical exercise without difficulty. Appropriate pharmacologic management of the patient with hyperreactive airways should allow not only younger asthmatics to achieve local, regional, national or worldwide prominence in athletics but also should allow middle aged and older asthmatics to be physically active to whatever degree they wish. Management plans that allow asthmatics to achieve these goals will be discussed.

Equipment and Techniques for Sports Injury Prevention An Update

Timothy N. Taft, M.D.

The methods to decrease the frequency and severity of sports injuries fall into several categories, namely.

1. Rules and regulations
2. Coaching techniques
3. Training techniques
4. Protective equipment.

I will review some of the training techniques that have recently been shown to be beneficial in the prevention of sports injuries. Particular emphasis will be placed on stretching and balanced strengthening pointing out some of the mistakes commonly made in conditioning programs. Methods to prevent heat syndromes will be included.

An update on protective equipment with emphasis on knee braces, rubberized casting materials and supportive wrappings will be given.

Initial Care of Selected Sports Emergencies

George Podgorny, M.D.

This presentation will focus on brief review of several common problems in sports, confronting physicians and the immediate actions and precautions indicated.

- A. Training, conditioning and dieting for grueling aerobic sports may not be sufficient or proper resulting in such crises as:

Cardio Vascular collapse, Fluid and electrolyte imbalance, hyper or hypo thermia.

Timely recognition, intervention and treatment are in order.

- B. A decision frequently must be made about terminating athletic activity. This as a rule is unpopular with fans and coaches. Appropriate and timely decisions are needed in situations such as:

Eye problems, rib injury, abdominal injury, scrotal trauma.

- C. The most dreaded athletic injury at times occult, is that of cervical spine vigilance.

- D. Medical aspects of boxing are in the lime light and though limited in numbers can be devastating.

Emotional Aspects of Sports

Chester M. Pierce, M.D.

The presentation will focus on: 1) the importance of psychiatry in the mission of sports and 2) the importance of sports in the mission of psychiatry. Emotional Aspects of Training — The presentation will discuss some of the factors which influence a person's motivation to begin and to sustain "training." The factors considered will include emotional resolutions derived from conflicts around aggression, sex, status and dependency.

Superoxide Anion: What Is It and What Does It Have to Do With the Practice of Medicine?

**Richard B. Johnston,
Jr., M.D.**

Superoxide anion is a "free radical" form of oxygen. Therefore, it is unstable, and it carries extra energy which can profoundly modify the chemical structure of materials with which it comes into contact. All cells in the body make superoxide anion as a byproduct of energy metabolism. Radiation and certain drugs used to treat cancer kill cells by inducing generation of this radical. Cells protect themselves against this toxic oxygen metabolite with the enzyme superoxide dismutase, which breaks down the superoxide radical. Phagocytic cells (poly-morphonuclear neutrophils, monocytes, and macrophages) have the unique capacity to produce superoxide anion when they make contact with an invading microorganism or cancer cell. Individuals who lack the capacity to generate superoxide in their phagocytic cells suffer severe, recurrent infections. Recent research in this area of immunology has been directed toward control of the production by phagocytic cells of superoxide and the other oxygen metabolites that derive from superoxide. Some agents have been found that decrease its production, which could be helpful in reducing inflammatory tissue damage, *e.g.*, in rheumatoid arthritis. Immuno-potentiating agents have been found that stimulate its production, which should be useful in fighting infection or, perhaps, cancer.

Prevention of Eye Injuries in the Athlete **Paul F. Vinger, M.D.**

Data on the incidence of eye injuries in various sports and preventive methods that have proven to work that are now under development and that are proposed for future consideration. The main thrust of the paper is a presentation of the development of the racquet sport standard which was recently published and the rapid acceptance of the standard by organizations who will be mandating the use of eye protection that meets the standard specifications. The successful experience with the hockey face mask will be mentioned. The eye aspects of boxing, baseball, soccer, swimming, shooting, and other sports which are now being studied at both the American Society of Testing and Materials and the United States Olympic Committee will be discussed.

Adolescent Heart Murmurs in Sports Participation **John A. Lombardo, M.D.**

The adolescent athlete who presents with a heart murmur constitutes a problem for the physician. The aim of this presentation will be to familiarize the participants with the identification and management of heart murmurs found in the young athletes. Screening techniques used during pre-participation evaluations will be discussed. The diagnostic testing used in the evaluation of these murmurs include treadmill stress testing, EKG, chest x-ray and echocardiogram. Safe participation in athletics for all individuals is the goal of the physician who deals with athletes. Guidelines for the management of heart murmurs is necessary in order to fill this goal.

“Preparing The Athlete For Competition”

Donald L. Cooper, M.D.

In preparing athletes for competition it is important to first have a good medical history and a fairly complete physical evaluation of the athlete. Next it is important to include running in your program of preparation, along with good flexibility and strength. This all takes proper supervision and good coaching techniques that optimize the opportunities for the athlete to develop to their best.

In addition self discipline must be taught and it is hoped that consistency can also be developed.

Proper maintenance of all facilities and playing areas is a must and must not be overlooked.

Proper medical care and proper supervision of medical care from the Trainer to the Physician is important.

Teaching good eating and sleeping habits will increase the chances of better results in athletic participation.

Over practice and over use syndromes will be discussed and methods to avoid these pitfalls will be presented.

The proper hydration of all athletes is also very important and necessary for optimum performance.

The use of drugs and alcohol is to be discouraged and is an area filled with dangerous responses and should be avoided.

Athletics remains one of the greatest educational tools left and we should do everything in our power to support our athletic programs.

Inter Cranial Vascular Disorders

Dwight Parkinson, M.D.

The increasing numbers of intracranial vascular lesions discovered each year seem to keep pace with the increasing numbers of neurosurgeons well-trained in their management or vice-versa. Nevertheless, they remain a formidable adversary and the only acceptable mortality and morbidity rate is zero. Enormous progress since the time of Cushing and Dandy in the handling of these lesions has resulted from 1) summation of learning and better training programs 2) better pre-operative angiography, 3) improvements in illumination and magnification 4) better understanding of the pathophysiology and surgical principles and finally, 5) the availability of intraoperative serial angiography (single films can be misleading). The latter two in particular will be discussed. Intraoperative serial angiography is useful in all intracranial vascular problems. It provides immediate assurance of the efficacy of a clip on a sacular aneurysm along with the assurance that no adjacent vessel has been compromised; provides assurance that an AVM removal is complete, or if not, the exact location of any residual (we believe the devastating post-operative hemorrhages that occasionally occur are more often the result of residual fistula with softening of the supporting structure due to coagulation and retraction than due to pressure change); provides a pre-closure evaluation of an extra-intracranial bypass and finally, provides a means for evaluating intraoperative embolization, thus giving the surgeon the advantage of the maximum reduction in vascularity that follows immediately after embolization, an advantage that rapidly diminishes as anastomotic channels are utilized and dilated in hours, in fact, in minutes.

Sudden Death in the Healthy Athlete — Why?

**Charles S. Petty,
M.D.**

The sudden and unexpected death of an athlete usually arouses a great public interest. This is true whether the athlete be a professional, a listed amateur, or a school child. The dead individual is characterized by family, friends, coaches, and others as being in excellent health. Frequently, the physician who has cared for the now dead individual gave that person a "clean bill of health" at some time not long before the fatal event. The physician is just as puzzled as others about the death.

To understand the death, an autopsy is necessary. The autopsy must be conducted by someone with experience and education in the field of sudden and unexpected death. In addition to the examination of the body after the death, a complete study of previous hospital records and physician's records is essential.

The causes of sudden death among athletes are many, nearly all of them relating to the heart. Some can be recognized at the autopsy table; others upon microscopic examination; and still others can be recognized only after a study of available hospital and physician's records.

Examples of these three main categories of sudden and unexpected death will be provided.

The Diagnosis of Knee Injuries in Athletics

**John A. Feagin, Jr.,
M.D.**

Knee injuries in sport are at near epidemic proportions. They have increased in frequency because of increased athletic performance manifest by higher speed, improved turf with more rapid cutting action, and oftentimes decreased lower body strength relative to the upper body.

The incidence of these injuries is such that early diagnosis is essential to their appropriate care. Accurate physical diagnosis should be within the purview of all physicians. The skills relevant to this will be reviewed, and current concepts of definitive knee care will be reviewed.

Intestinal Gas Michael D. Levitt, M.D.

1. Components of Intestinal Gas
 - a. Major components — CO_2 , O_2 , N_2 , H_2 , CH_4
 - b. Minor components — Odoriferous gases
2. Role of Intestinal Gas in G.I. Complaints
 - a. Eructation
 1. Origin of complaint — psychogenic
 2. Treatment — education
 - b. Bloating and Distension
 1. Origin of problem
 - a. Volume of gas in normal gut and "bloating" gut — similar (200 ml)
 - b. Problem of dysmotility
 2. Treatment
 - a. Reduction of gas — ineffective
 - b. Drugs influencing motility
 - c. Examine flatulence
 1. Origin
 - a. Gas produced in gut (CO_2 , H_2 , CH_4)
 - b. Role of bacteria in gas production.
 - c. Role of carbohydrate malabsorption in gas production.
 2. Treatment
 - a. Alteration of bowel flora
 - b. Reduction of carbohydrate malabsorption.

Athletic Injuries Of The Hand Michael J. Jabaley, M.D.

Significant hand injuries resulting from sports are of two types: (1) direct trauma, resulting in fractures, tendon laceration or ruptures, joint injuries, and skin loss. (2) Overwork syndromes, which are less traumatic but

Journal of the Kentucky Medical Association

equally disabling and fall into the categories of nerve entrapments and numbness, or chronic pain.

This presentation will highlight specific conditions which are common in athletes and will emphasize those symptoms and signs which are helpful in diagnosis. Visual examples will be demonstrated and some practical tips of management and outcome will be shown.

The Use of Beta Blockers in the Exercising Patient **E. Paul MacCarthy, M.D.**

This presentation will briefly review the cardiovascular physiology of exercise, and how beta-blockers modify the hemodynamic changes which accompany exercise. Differences between the various beta-blockers on exercise performance will be discussed, and the effect of beta blockers on the training phenomenon will be reviewed.

The Effects of Physical Exertion in the Hypertensive Patient and their Management **E. Paul MacCarthy, M.D.**

This presentation will include a review of the effects of isometric and isotonic exercise on blood pressure. Modification of the pressor response to exercise by various antihypertensive agents will be discussed. The potential for exercise as a method for reducing blood pressure in the patient with mild hypertension will also be presented.

Special Considerations For The Female Athlete Menses and Pregnancy **William R. Keye, Jr., M.D.**

- I. Impact of athletic training on reproductive function
 - A. Puberty
 1. Secondary sexual characteristics
 2. Menarche
 3. Physical characteristics
 - B. Menstruation
 1. Ovulation
 2. Dysmenorrhea
 3. Premenstrual symptoms
 - C. Pregnancy
 1. Conception
 2. Early pregnancy wastage
 3. Preterm labor
 4. Fetal well-being
- II. Impact of reproductive events on athletic performance
 - A. Menstruation
 1. Dysmenorrhea
 2. Premenstrual symptoms
 - B. Pregnancy
 1. Cardiovascular changes
 2. Musculoskeletal changes

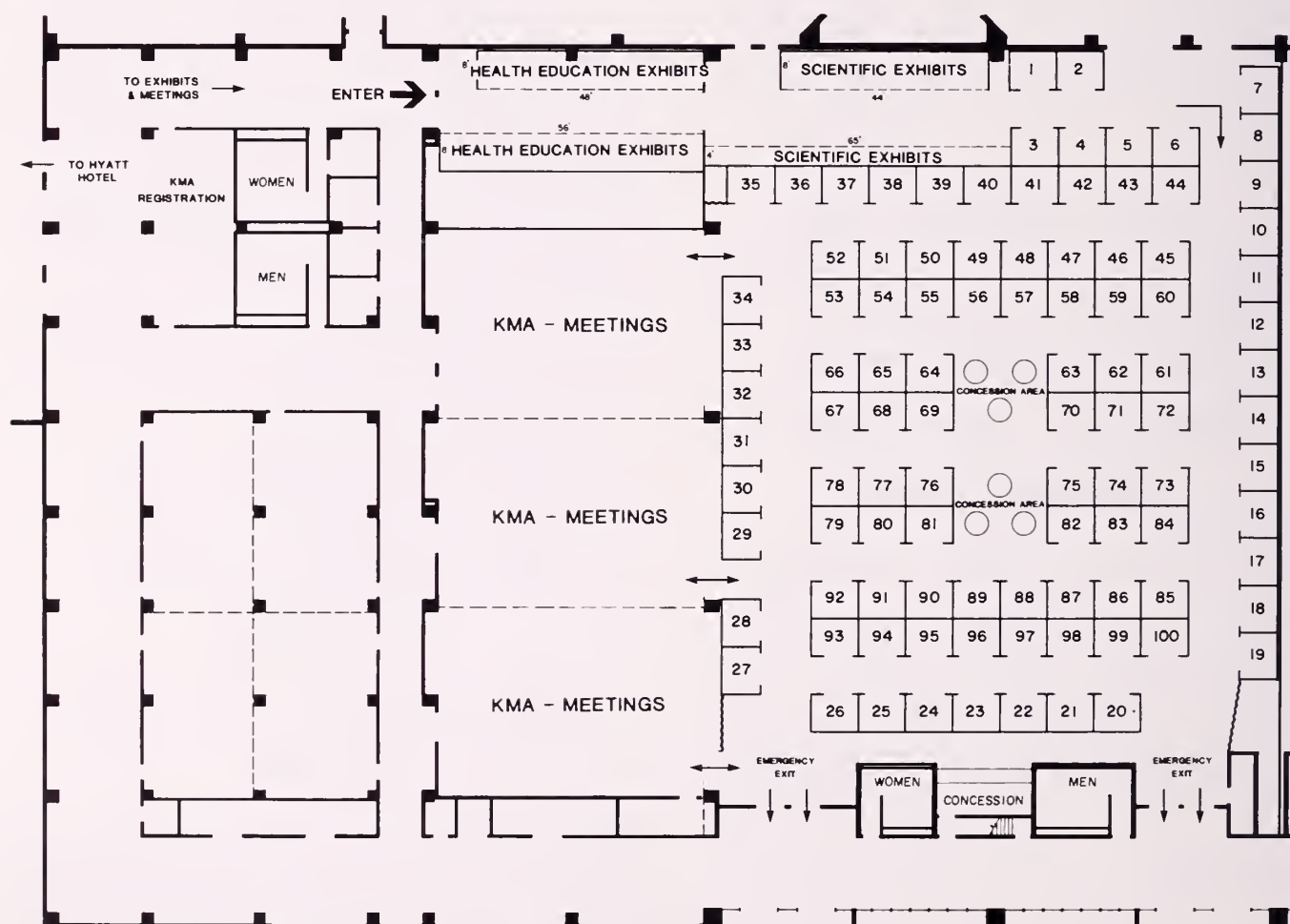
Latest Research Advances in Products and Services Offered by 1984 Technical Exhibits

The Technical Exhibits at the 1984 KMA Annual Meeting will feature the latest developments in medical techniques and information. Located in the Lexington Center, the exhibits will condense a volume of information and ideas in such a manner that a vast amount of knowledge can be secured in a short period of time.

Prepared carefully and skillfully to appeal to you, the physician, the exhibits are especially geared to your special interests as a practitioner. Medical

representatives and other exhibitors will be on hand to discuss personally their products and services with you. Both you and your patients should benefit from the information that can be gained from a visit to the Technical Exhibits.

Thirty-minute intermissions have been planned during each general and specialty group session so that every physician may take advantage of this excellent opportunity provided by the exhibits.



1984 TECHNICAL EXHIBITORS

Abbott Laboratories (9)
Adria Laboratories, Inc. (37)
AEGIS Medical Systems, Inc. (100)
American Physicians Life (16)
Ayerst Laboratories (89)

Beecham Laboratories (30)
Berlex Laboratories, Inc. (64)
Blue Cross and Blue Shield of Kentucky (93)
Boehringer Ingelheim Ltd. (90)
Boots Pharmaceuticals, Inc. (28)
Bristol Laboratories (52)
Burroughs Wellcome Co. (6)

Cardinal Hill Hospital (39)
Cardio/graphics, Inc. (25)
Care Tenders (22)
CBM Computer Center (86)
Central Baptist Hospital (84)
Central Pharmaceuticals, Inc. (75)
Charter Ridge Hospital (47)
Clinical Pathology Associates, Inc. (77)
The Combis Group, Inc. (94)
The Crocker-Fels Co. (18)
CTS (Computer Terminal Services) (62)

DATAMAX Computer Corporation (38)
Dista Products Company (81)
Division for Disability Determinations (35)
Dorsey Pharmaceuticals (12)
Dupont Pharmaceuticals (87)

Encyclopaedia Britannica, USA (88)

Frazier Rehabilitation Center (95)
FREOTEK, Inc. (97)

Gerber Products Company (11)
Glaxo, Inc. (5)
Guild of Prescription Opticians of Kentucky (45)

Health America Corporation (96)
Health Data Network (42)
John Hancock Life Insurance (7)

Hearing Aid Association of Kentucky, Inc. (41)
Hoechst-Roussel Pharmaceuticals, Inc. (82)
Hospital Corporation of America (66)
Humana, Inc. (68)

International Business Machines (83)
International Clinical Laboratories (43)
International Medical Electronics, Ltd. (60)
Ives Laboratories, Inc. (78)

Jewish Hospital (74)

Kentucky Army National Guard (19)

Kentucky Medical Insurance Company (20)

Kentucky Medical Management & Computer Operations (KMCO) (14)

KMA Insurance Agency (21)

KMA Physicians Financial Services, FCU (15)

Knoll Pharmaceutical Company (59)

Lederle Laboratories (8)

A. P. Lee Agency, Inc. (70)

Eli Lilly and Company (76)

J. B. Lippincott, Co. (53)

Louisville Convention & Visitors Bureau (33)

Mead Johnson Nutritional Division (57)

Medical Management (17)

The Medical Protective Company (10)

Medical Publishers' Representatives, Inc. (32)

Merck Sharp & Dohme (56)

Merrell-Dow Pharmaceuticals (80)

Methodist Evangelical Hospital, Inc. (23)

Miles Laboratories, Inc. Ames Division (67)

Miles Pharmaceuticals (46)

Norwich Eaton Pharmaceuticals, Inc. (65)

Ortho Pharmaceutical Corporation (1)

Our Lady of Peace Hospital (54)

Pathology & Cytology Laboratories, Inc. (26)

Pfizer Laboratories (24)

PCT, Inc. (49)

Physio-Control Corporation (91)

Primarius (13)

Pulse Systems (31)

Ransdell Surgical, Inc. (3)

Reynolds & Reynolds (98 & 99)

Riker Laboratories, Inc./3M (40)

A. H. Robins Company (2)

Roche Biomedical Laboratories, Inc. (69)

J. B. Roerig (4)

William H. Rorer, Inc. (55)

Ross Laboratories (92)

Sandoz Pharmaceuticals (36)

W. B. Saunders Company (50)

Schering Corporation (34)

Clayton L. Scroggins Associates, Inc. (79)

Searle Laboratories (44)

Smith Kline & French Laboratories (63)

Southern Medical Association (73)

E. R. Squibb & Sons, Inc. (29)

U. S. Air Force (85)

U. S. Army Medical Department (27)

U. S. Navy Recruiting (51)

Wallace Laboratories (72)

Westwood Pharmaceuticals (71)

Willow Associates (61)

Winthrop-Breon Laboratories (48)

Wyeth Laboratories (58)

Technical Exhibits

Hyatt Regency-Lexington Convention Center

ABBOTT LABORATORIES

Booth 9

14th and Sheridan Road
North Chicago, IL 60064
312/937-3280

You are cordially invited to visit the Abbott exhibit which will feature TRANXENE® (clorazepate dipotassium) and E.E.S.® (erythromycin ethyl succinate).

ADRIA LABORATORIES, INC.

Booth 37

P.O. Box 16529
Columbus, OH 43216
614/764-8100

Cordially invites members of the Kentucky Medical Association to visit our exhibit and meet our representatives who will welcome the opportunity to discuss products of interest with you, including KAON CL™ -10 (potassium chloride) and AXOTAL® for relief of tension headache.

AEGIS MEDICAL SYSTEMS, INC.

Booth 100

3000 Lincoln Drive East
Marlton, NJ 08053-3101
800/257-5750

AEGIS® Real Time Ambulatory Monitoring Systems; Holter type ECG monitoring system; AEGIS® is designed for application in all clinical environments - private practice, clinical or hospital.

AMERICAN PHYSICIANS LIFE

Booth 16

P.O. Box 281
Pickerington, OH 43147
614/864-3900

AMERICAN PHYSICIANS LIFE is a regional life insurance organization specializing in life insurance and financial planning services for physicians and their professional corporations. American Physicians Life features a special KMA-sponsored program of coverages which includes life insurance, disability income plans, qualified pension plans, and tax-deferred annuities. American Physicians Life is also the underwriter of several KMA-sponsored group plans.

AYERST LABORATORIES

Booth 89

685 Third Avenue
New York, NY 10017
212/878/6001

Our Representatives look forward to a visit with you and the opportunity to discuss the Ayerst products and services of interest to you.

BEECHAM LABORATORIES

Booth 30

501 Fifth Street
Bristol, Tennessee 37620
615/764-5141

Beecham Laboratories' exhibit will concentrate on our major promoted products, AMOXIL®, FASTIN®, TIGAN®, NUCOFED®, and TICAR®. New package sizes for AMOXIL will be displayed, and complete prescribing information on TICAR will be available at the exhibit.

BERLEX LABORATORIES, INC.

Booth 64

300 Fairfield Road
Wayne, NJ 07470
201/694-4100

We cordially invite members and guests of the Association to visit our booth where we will be featuring QUINAGLUTE® (quinidine gluconate) DURATABS® (sustained-release tablets) and DECONAMINE (chlorpheniramine maleate 8mg/d-pseudoephedrine HCl 120mg) sustained-release capsules. Our representatives in attendance will gladly answer your questions regarding these and our other fine products.

BLUE CROSS AND BLUE SHIELD OF KENTUCKY

Booth 93

9901 Linn Station Road
Louisville, KY 40223
502/423-2340

The 1984 Blue Cross and Blue Shield exhibit will offer physicians the opportunity to meet with representatives of the Provider and Professional Affairs Division. Our representatives will be present at the booth to answer any questions you may have.

BOEHRINGER INGELHEIM LTD.

Booth 90

90 East Ridge, P.O. Box 368
Ridgefield, CT 06877
203/438-0311

We will feature the following products: Catapres® (brand of clonidine and hydrochloride), Combipres® (clonidine hydrochloride 0.1 mg or 0.2 mg and chlorthalidone 15 mg), Persantine® (brand of dipyridamole), Respid® (brand of theophylline), and Alupent® (brand of metaproterenol sulfate) in its many dosage forms. Our representatives will be on hand to answer questions about these and any of our other ethical pharmaceuticals.

BOOTS PHARMACUTICALS, INC. Booth 28

6540 Line Avenue
Shreveport, LA 71106
318/869-3551

The Boots exhibit will feature Rufen®, the Boots brand of ibuprofen, originally discovered and developed by its parent company, The Boots Company P.L.C., and now available in the U.S.A.; Lopurin®, (allopurinol), a well-established treatment of hyperuricemia and gout; and Zorpin®, a newly developed aspirin formulation that via its zero-order-release properties, offers a new scope to salicylate therapy.

BRISTOL LABORATORIES Booth 52

P. O. Box 4755
Syracuse, NY 13221-4755
315/432-2799

You are cordially invited to visit our exhibit. Our representatives at the booth welcome the opportunity to answer your questions concerning the Bristol line of products featuring; Amikin® (amikacin sulfate); 'Bufferin® c Codeine #3 (each tablet contains 325 mg. aspirin, 48.6 mg. aluminum glycinate, 97.2 mg. magnesium carbonate and 30 mg. codeine phosphate); Cefadyl® (sterile cephapirin sodium); The Naldecon® Line (antihistamine decongestant) /EX Ped Drops/DX Ped Syrup/CX Suspension; Salutensin® (hydroflumethiazide 50 mg./reserpine 0.125 mg.); Stadol® (butorphanol tartrate); and Ultracef® (cefadroxil).

BURROUGHS WELLCOME CO. Booth 6

3030 Cornwallis Road
Research Triangle Park, NC. 27709
919/248-4492

Representatives of Burroughs Wellcome Co. cordially invites you to visit Booth No. 6. Our exhibit will feature the latest product information available from B.W. Co. and provide educational material of interest to all physicians. We will be pleased to answer your inquiries on any products of interest to members and guest.

CARDINAL HILL HOSPITAL Booth 39

2050 Versailles Rd.
Lexington, KY 40504
606/254-5701

CARDIO/GRAPHICS, INC. Booth 25

95 White Bridge Road #200
Nashville, TN 37205
615/352-8317

Our company offers a Holter Monitoring scan service and arrhythmia recorder monitoring service. The ICR recorder, hook-up kits and all equipment necessary for each 24 hour tracing are provided at NO CHARGE to hospitals, clinics and private physicians. Tapes are sent to our office for scanning and within 24 hours, the physician receives a verbal report by phone. A concise written report follows by first-class mail.

CBM COMPUTER CENTER Booth 86

198 Moore Drive
Lexington, KY 40503
606/276-1519

CBM Computer Center is Kentucky owned and operated having a dedicated Medical Support Group with professional awareness, classroom, on-site training and phone support. Accounts receivable, patient-insurance billing and practice analysis is the primary goal. Many other features and services are available. Coverage includes all Kentucky, Ohio, Indiana, Tennessee and West Virginia. Products include IBM, TEXAS INSTRUMENTS. WANG AND HEWLETT PACKARD.

CENTRAL BAPTIST HOSPITAL Booth 84

1740 South Limestone Street
Lexington, KY 40503
606/278-3411

Central Baptist Hospital will exhibit materials promoting new departments, services and programs which opened this summer as part of its twenty million dollar expansion/renovation program.

CENTRAL PHARMACEUTICALS, INC. Booth 75

110-128 East Third Street
Seymour, IN 47274

CENTURY PATIENT CARE SYSTEMS Booth 49

5325 Werling Drive
Ft. Wayne, IN 46806
219/447-3801

The CENTURY BIRTHING CHAIR offers a natural pelvic tilt and infinite adjustments at a touch of a button. The Chair is being used in medical schools such as John Hopkins and Harvard. Over 600 CENTURY BIRTHING CHAIRS have been sold.

CHARTER RIDGE HOSPITAL Booth 47

3050 Rio Dosa Drive
Lexington, KY 40509
606/269-2325

CLINICAL PATHOLOGY ASSOCIATES, INC. Booth 77

4010 Dupont Circle #360
Louisville, KY 40207
800/CPA-TEST
502/896-8891

A unique concept for full utilization of sophisticated modern technology in computers, transportation, communication, and instrumentation for delivery of Clinical Laboratory services. The laboratory is owned and operated by seven Pathologists and maintains the highest professional and ethical standards. All Pathologists are dedicated to the following goals: Reliable test results, consistent dependable service and low fees.

THE COMBUS GROUP, INC.

Physician Data Systems Division
861 Corporate Drive
Lexington, KY 40503
606/223-5754

The Physician Data Systems division of the Combus Group offers a modular computer system designed for physicians. This system provides not only billings and receivables, but complete patient record keeping including everything from scheduling through physicians notes. It is a complete modular office management system. In addition to this basic package which will allow use in most specialties and family physicians, we offer a radiology module for specialized billing and reporting. Word processing, general ledger and accounting functions are also available.

THE CROCKER-FELS CO.

811 East Broadway
Louisville, KY 40204
502/583-8855

The CROCKER-FELS COMPANY, serving six states over 100 years, welcomes this opportunity to meet with the members of the Association. Our representatives' years of experience, in equipment and supply needs for the Physician's office, will prove an invaluable asset to your practice. Take the time, stop by and talk with one of our representatives, we believe you will enjoy the experience. Thank you.

CTS (COMPUTER TERMINAL SERVICES)

Mr. Jim Stockwell
CTS (Computer Terminal Services)
10475 Montgomery Road, Suite 1J
Cincinnati, Ohio 45242
513/793-4118

DATAMAX COMPUTER CORPORATION

P.O. Box 1862
Owenboro, KY 42302-1862
502/926-4781

An Authorized DIGITAL Computer Distributor, will demonstrate, MEDICOMS, a complete medical receivables management system. MEDICOMS provides internal controls, insurance claims form generation, statement preparation, numerous accounting and analytical features that support controlled cash management. This is accomplished with a specialized medical system and a micro or mini-computer.

DISTA PRODUCTS COMPANY

307 East McCarty Street
Indianapolis, IN 46285
317/261-2554

You are cordially invited to visit the Dista Products Company exhibit. Our sales representatives in attendance will welcome your questions about our pharmaceutical products.

Booth 94**Booth 18****Booth 62****Booth 38****Booth 81****DIVISION FOR DISABILITY DETERMINATIONS**

P.O. Box 1000
Frankfort, KY 40602
502/564-5132

Under an agreement with the Dept. of Health and Human Services, we prepare Social Security and Supplemental Security Income disability determinations on Kentucky applicants. Our exhibit is staffed by members of our medical staff and disability examiners—both of whom are actively involved in adjusting claims filed for disability benefits. We will be available to answer questions, explain criteria and talk to physicians interested in helping us evaluate over 25,000 claims per year.

DORSEY PHARMACEUTICALS

59 Rt. 10
EAST HANOVER, NJ 07936
201/386-8005

Dorsey Pharmaceuticals invites you to stop by our exhibit where our representatives will be pleased to provide information on our products and on educational materials that we have available.

DUPONT PHARMACEUTICALS

One Rodney Square
Wilmington, DE 19898
800/441-7516

ENCYCLOPEDIA BRITANNICA, USA

310 South Michigan Ave.
Chicago, IL 60604
312/347-7342

Encyclopedia Britannica will have on display our latest 30-volume edition (ENCYCLOPEDIA BRITANNICA III), and related educational publications.

FRAZIER REHABILITATION CENTER

220 Abraham Flexner Way
Louisville, KY 40205
502/582-2231

The FRC FEEDING TEAM provides an innovative service to patients exhibiting feeding disorders as a result of cerebrovascular accidents, head trauma, and other neurogenic impairments. This interdisciplinary group is comprised of physiatrists, an otolaryngologist, a radiologist, speech-language pathologists, occupational therapists, a dietitian, and nurses. Services include: assessment combining videofluoroscopy and actual oral feeding observations; interdisciplinary problem solving; appropriate therapeutic management and follow-up; family teaching; and staff and community education. Achievement of safe and adequate nutrition is the primary goal of the feeding team.

Booth 35**Booth 12****Booth 87****Booth 88****Booth 95**

FROTEK, INC.

601 South Floyd Street
Louisville, KY 40202
502/585-2565

FROTEK is a Sperm Bank providing frozen storage of human semen for the following men: 1) Men undergoing chemotherapy or radiation therapy, 2) Men undergoing prostate or testicular surgery, 3) Men who are at risk due to their occupation (i.e. exposure to radiation), 4) Men who plan vasectomy for sterilization, 5) Men with low sperm counts who plan to combine specimens for artificial husband insemination. FROTEK does not provide specimens for donor insemination.

GERBER PRODUCTS COMPANY

445 State Street
Fremont, MI 49412
616/928-2257

You are cordially invited to visit the GERBER display. MEAT BASE FORMULA, NUK products, nurseries/accessories, humidifiers/vaporizers, car seats, patient booklets and a broad selection of GERBER BABY FOODS will be featured. Our Medical Marketing Representatives will be happy to discuss our products and services with you.

GLAXO, INC.

5 Moore Drive.
Research Triangle Park, NC. 27709
919/248-2100

Glaxo invites you to enter a unique new era of cephalosporin therapy, where our representatives will be available to discuss the therapeutic advances offered for today's cost-conscious hospital environment, and also to discuss ZANTAC—the first advance in H₂ antagonist therapy for active duodenal ulcer and pathological hypersecretory conditions.

GUILD OF PRESCRIPTION OPTICIANS OF KENTUCKY

P.O. BOX 1063
Louisville, KY 40201
502/583-0687

Eyeglasses Adjusted—visit our booth to have your eyeglasses properly adjusted for maximum comfort and visual benefit. Minor repairs also can be made on the spot. Free Distance and Near Vision test cards, for use by the general practitioner, are offered. Your Guild Optician works closely with the ophthalmologist to provide the best in visual aid appliances. Support the Eye Physician Guild Optician type of eye services for better eye care.

HEALTH DATA NETWORK

P.O. Box 4478
Louisville, KY 40204
502/585-1391

HEALTH DATA NETWORK will present a live on-line computer system actually running a model practice. It will demonstrate how easily daily cash and

Booth 97

accounts receivable can be controlled and how patient records are instantly updated and billed. Samples of patient bills, collection letters, third party payor billings and reports to aid in practice management will be available. A representative will be present to answer questions.

JOHN HANCOCK LIFE INSURANCE

541 South 3rd Street
Louisville, KY 40202
502/584-2161

HEARING AID ASSOCIATION OF KENTUCKY, INC.

121 Malabu Drive. Unit #7
Lexington, KY 40503
606/278-7217

The Hearing Aid Association of Kentucky (HAAK) is an organization fostering, stimulating, and maintaining high standards of technical competence and ethical practices on the part of those engaged in the fitting and servicing of hearing aids. HAAK representatives will display the "state of the art" in hearing instrument technology. HAAK is a state chapter of the National Hearing Aid Society.

HOECHST-ROUSSEL PHARMACEUTICALS, INC.

Rte. 202-206 N.
Somerville, NJ 08876
201/231-2727

Claforan® (cefotaxime sodium) Sterile will be featured at the Hoechst-Roussel Pharmaceuticals, Inc. display. Information on Claforan's excellent record of efficacy and safety will be provided at our booth.

HOSPITAL CORPORATION OF AMERICA

4525 Harding Road; P. O. Box 1575
Nashville, TN 37202
615/383-4444

HCA owns and manages over 390 hospitals nationwide, including 13 in Kentucky. We offer free no obligation assistance to physicians looking for a practice. For more information about opportunities with HCA, please come by our booth or contact HCA's Professional Relations office by phone or write (enclosing your curriculum vitae) to: Robert Porter, Hospital Corporation of America; P. O. Box 1575; Nashville, TN (800) 251-1537 or (615) 383-4444

Robert S. Howell, M.D.

WILLOW ASSOCIATES
Jewish Hospital
Louisville, KY 40202
502/587-4460

Booth 7**Booth 41****Booth 82****Booth 66****Booth 61**

HUMANA INC.

1800 First National Tower
Louisville, KY 40201
502/561-2300

Humana is a multi-national hospital company based in Louisville. Stop by our booth and discuss private practice opportunities that are currently available in the Humana's Kentucky communities of Louisville, Lexington, Somerset and Louisa.

INTERNATIONAL BUSINESS MACHINES

1733 Harrodsburg Road
Lexington, KY 40504
606/276-7159

INTERNATIONAL CLINICAL LABORATORIES

P. O. Box 11750
Lexington, KY 40577
606/255-3676
Computerized Clinical Laboratory Service and Hospital Laboratory Management.

INTERNATIONAL MEDICAL ELECTRONICS, LTD.

2805 Main Street
Kansas City, MO 64108
816/221-0115

INTERNATIONAL MEDICAL ELECTRONICS, LTD., manufacturers of sophisticated medical equipment, featuring Magnatherm short-wave diathermy with two detachable heads. Offering the ability to treat two separate areas or one from two directions at the same time. Please stop by Booth #60 for a demonstration.

IVES LABORATORIES, INC.

685 Third Avenue
New York, NY 10017
212/878-5124

IVES LABORATORIES, INC., will be available to discuss the family of ISORDIL (isosorbide dinitrate) products, meeting the needs of each patient with angina pectoris; SYNALGOS DC, a Class III narcotic analgesic combining the centrally acting analgesic dihydrocodeine and peripherally acting analgesic and antiinflammatory aspirin; SURMONTIL (trimipramine maleate), a newer antidepressant that offers patients the benefit of efficacy and a low side-effect profile; and CYCLOSPASMOL (cycloclandelate), a peripheral and cerebral vasodilator.

JEWISH HOSPITAL

217 East Chestnut Street
Louisville, KY 40202
502/587-4230

The exhibit will feature several of the specialty services offered at Jewish Hospital. A video-tape monitor will be used to highlight some of these programs and technologies.

Booth 68**Booth 83****Booth 43****Booth 60****Booth 78****Booth 74****KENTUCKY ARMY NATIONAL GUARD Booth 19**

Boone National Guard Center
Frankfort, KY 40601
502/564-8478

KENTUCKY MEDICAL INSURANCE COMPANY

3532 Ephraim McDowell Drive
Louisville, KY 40205
502/459-3400

Kentucky Medical Insurance Company, organized by the Kentucky Medical Association, is a professional liability insurance company owned by physicians, run by professionals, with physician input in all areas in which there is need of physician expertise. We welcome the opportunity to discuss the advantages and benefits represented by our program of coverage.

KENTUCKY MEDICAL MANAGEMENT & COMPUTER OPERATIONS

3532 Ephraim McDowell Drive
Louisville, KY 40205
502/451-2095

Kentucky Medical Management and Computer Operations, Inc., is a new subsidiary of KMA Physicians Services, Inc. The company offers a wide range of computer and practice management services to benefit KMA members. The company markets computer systems services which include consulting, practice management workshops, training, and ongoing support of hardware and software. The product line consists of small personal computers up to and including larger super minicomputer systems for large groups and clinical practices. The goal of KMCO is to provide reliability and continuity of services at reduced costs.

KMA PHYSICIANS FINANCIAL SERVICES

P.O. Box 34130
Louisville, KY 40232
502/459-9099

The KMA Financial Services, Federal Credit Union, is a full service financial institution organized and chartered for the benefit of physician members of the Kentucky Medical Association, their employees, and members of their families. They offer all of the usual and traditional banking services including: loans, savings accounts, checking accounts, credit cards, and insured money market type accounts

KNOLL PHARMACEUTICAL COMPANY

30 North Jefferson Road
Whippany, NJ 07981
201/887-8300

Featuring VICODIN® and ISOPTIN®.

Booth 20**Booth 14****Booth 15****Booth 59**

LEDERLE LABORATORIES

1800 Valley Road
Wayne, NJ 07470
201/831-7077

You are invited to visit booth #8 where Lederle representatives will provide information on PIPRACIL® piperacillin sodium, a new parenteral semi-synthetic penicillin with potent broad-spectrum bactericidal activity against gram negative, gram positive, aerobic and anaerobic pathogens associated with uncomplicated and serious infection; MINOCIN®, minocycline HCL, our distinguished broad spectrum antibiotic; ASENDIN®, amoxapine, indicated in the relief of symptoms due to depression and characterized by rapid onset of action; and CYCLOCORT®, amcinonide cream .01% with AQUATAIN® moisturizing base.

A. P. LEE AGENCY INC.

631 Lincoln Federal Building
Louisville, KY 40202
502/583-1888

Disability income coverage since 1939. We now have realistic monthly benefits in both disability income and office expense programs. The individual contract provides "your occupation" coverage at group rates. Since we're as near as your phone, the claim service is second to none.

ELI LILLY AND COMPANY

307 East McCarty Street
Indianapolis, IN 46285
317/261-2554

You are cordially invited to visit the Eli Lilly and Company exhibit. Our sales representatives in attendance will welcome your questions about our pharmaceutical products.

J. B. LIPPINCOTT CO.

4740 Blairfield Drive.
Columbus, OH 43214
614/451-2045

The Health Professions Publisher of Harper & Row, Inc.

**LOUISVILLE CONVENTION
& VISITORS BUREAU**

P.O. Box 1258
Louisville, KY 40201
502/584-2121

8 x 10 booth with photographs and maps depicting the Louisville and Jefferson County area promoting hotel and convention facilities with the intent of trying to draw regional and national conventions from the medical and affiliated community.

Booth 8**MEAD JOHNSON NUTRITIONAL
DIVISION**

2404 Pennsylvania Avenue
Evansville, IN 47721-0001
812/426-7040

We cordially invite you to visit the Mead Johnson Nutritional Division exhibit and meet our local representatives who will welcome the opportunity to discuss products and services of interest to you. Featured will be infant formulas, hospital feeding systems, pediatric vitamins, adult nutritionals, and Naturacil™, a chewable bulk laxative.

MEDICAL MANAGEMENT

215 Breckinridge Lane
Louisville, KY 40207
502/895-6262

If you deal with Medicare and Medicaid, we can help you cut through the red tape. Stop by and visit with our representatives to discuss how Medical Management can increase your collections, eliminate your billing problems and provide valuable information on ever-changing government policies and procedures.

**THE MEDICAL PROTECTIVE
COMPANY**

P.O. Box 15021
Fort Wayne, IN 46885
219/485-9622

As befits the First Company in the professional liability field, The Medical Protective Company provides unexcelled protection in any claim damages based upon professional services rendered or which should have been rendered. The Company's experience from the successful handling of over 140,000 claims during eighty-five years of Professional Protection Exclusively is unparalleled in the professional liability field.

**MEDICAL PUBLISHERS'
REPRESENTATIVES, INC.**

2223 Pompano Avenue
Cincinnati, OH 45215
513/733-3292

Medical Publishers Representatives, Inc., will display current Medical Books from fifteen leading publishers, including Williams & Wilkins; Appleton; CIBA; Raven; University Park Press; MacMillan; Oxford; Yearbook; McGraw-Hill; Churchill-Livingstone; Thieme Stratton; Springer-Verlag; and others.

MERCK SHARP & DOHME

West Point, PA 19486
215/661-6789

MERCK SHARP & DOHME, cordially invites you to visit their exhibits featuring a number of products from their extensive line of pharmaceuticals. Representatives in attendance will be pleased to answer any questions you may have. Inquiries about our professional, informational, and educational services are welcomed.

Booth 57**Booth 17****Booth 10****Booth 32****Booth 56**

MERRELL-DOW PHARMACEUTICALS Booth 80
1304 Ridge Road
Carmel, IN 46032
317/848-9333

Manufacturers of NICORETTE, nicotine resin chewing gum, LORELCO, BRICANYL, NOVAFED NOFAFED-A, CEPACOL mouthwash and gargle.

MILES LABORATORIES, INC. Booth 67
(AMES DIVISION)
P. O. Box 70
Elkhart, IN 46515
219/262-7846

Stop and find out what's new from Ames the reliable leader of a wide variety of easy-to-use in-vitro medical information systems which include urine chemistry, blood chemistry, immunochemistry, and diabetes management.

MILES PHARMACEUTICALS Booth 46
6805 Tottenham Road
Louisville, Ky 40207
502/897-2033

MILES PHARMACEUTICALS cordially invites you to visit their exhibit featuring (mezlocillin sodium IV/IM use) brand name MEZLIN™ and (azlocillin sodium IV/IM use) brand name AZLIN™ the first of a new generation of semisynthetic penicillins, the acylureidopencillins. Also featured will be MYCELEX-G™, MYCELEX™, MYCELEX-TROCHE™ and TRIDESILON™ products. Representatives in attendance welcome your questions about MILES PHARMACEUTICALS PRODUCTS and the *MILES LEARNING CENTER* on display.

NORWICH EATON PHARMACEUTICALS, INC. Booth 65
17 Eaton Avenue
Norwich, NY 13815
607/335-2238

ORTHO PHARMACEUTICAL CORPORATION Booth 1
Route 202
Raritan, NJ 08869
201/524-2343

Ortho Pharmaceutical Corporation is proud to present the most complete line of medically accepted products for the control of conception. Also on display will be our well-known products for the treatment of various forms of vaginitis. Your questions will be welcomed.

OUR LADY OF PEACE HOSPITAL Booth 54
2020 Newburg Road
Louisville, KY 40205
502/451-3330

Our Lady of Peace Hospital, An American Health Care Management, Inc. Facility, offers a comprehensive multi-disciplinary approach to treating adolescents and adults with psychiatric, emotional or chemically related problems. Recognized for excel-

lence in training, research and patient care, Our Lady of Peace offers programs in substance abuse, youth treatment and general psychiatric services. Specializing in short term acute care. Our Lady of Peace Hospital is a 416 bed facility located at 2020 Newburg Road.

PATHOLOGY & CYTOLOGY LABORATORIES, INC. Booth 26
2370 Nicholasville Road
Lexington, KY 40503
606/278-9513

Pathology & Cytology Laboratories Inc., provide laboratory services for hospitals, nursing homes, and physicians throughout the State of Kentucky. The Laboratory is directed by Pathologists.

PHYSIO-CONTROL CORPORATION Booth 91
Suite 175, 250 East Wilson Bridge Road
Worthington, OH 43085
614/885-0216

Heart monitors and defibrillators, vital signs monitors and central monitoring systems.

PRIMARIUS Booth 20
4186-C Sorrento Valley Blvd.
San Diego, CA 92121
619/455-6841

Primarius is a high quality interactive patient self-care learning system. The microcomputer based system supports and reinforces your patient counseling in an effective, active, participatory way. Keyboard interaction & audio/visual synchronization are tailored to your patient education needs. The Primarius system standardizes communication with patients, maximizes staff effectiveness and gives you a competitive edge! Library includes Cancer, Allergy, Diabetes, Nutrition and Cardiovascular programs. Complete system available on a monthly rental basis.

PULSE SYSTEMS Booth 31
P.O. Box 869
Evansville, IN 47705
812/428-6730
PULSE Medical Computer.

RANDELL SURGICAL, INC. Booth 3
752 Barret Avenue
Louisville, KY 40204
502/584-6311

RANDELL SURGICAL INC., will display new items to all medical specialties in the area of medical/surgical supplies and durable medical equipment.

REYNOLDS & REYNOLDS Booth 98 Booth 99
P.O. Box 1005
Dayton, OH 45401
513/443-2582

THE REYNOLDS & REYNOLDS Medical Practice Management System is a totally integrated "turnkey" system and was developed to meet the specific demands of today's medical practice. Reynolds & Rey-

nolds is an established computer systems company supplying hardware, software, service, training, overall system support, business forms, and lease financing.

RIKER LABORATORIES, INC./3M **Booth 40**
P. O. Box 1, 19901 Nordhoff Street
Northridge, CA 91328
818/341-1300

A. H. ROBINS COMPANY **Booth 2**
1407 Cummings Drive
Richmond, VA 23220
804/257-2563

You are cordially invited to visit the A. H. Robins exhibit and meet our representatives who will welcome the opportunity to discuss our products; Reglan and Micro-K.

ROCHE BIOMEDICAL LABORATORIES, INC. **Booth 70**
231 Maple Avenue
Burlington, NC 27216
919/584-5171

ROCHE BIOMEDICAL LABORATORIES, INC., is a National Reference Laboratory which provides clinical testing and support services to hospitals, researchers and physicians.

J. B. ROERIG **Booth 4**
220 North Coburn Drive
Edgewood, KY 41017
616/331-5442

We anticipate the introduction of Glucatorol, (Glipizide), prior to this date. In addition, we will feature Cefobid, (Cefaperazone), a unique broad spectrum antibiotic. Thank You.

WILLIAM H. RORER, INC. **Booth 55**
500 Virginia Drive.
Fort Washington, PA 19034
215/628-6492

William H. Rorer, Inc. is pleased to be part of this medical meeting and welcomes your visiting our exhibit. Representatives are available and will discuss with you pharmaceutical specialties manufactured by Rorer: MAALOX®, MAALOX® PLUS, MAALOX® THERAPEUTIC CONCENTRATE, ASCRIPTIN®, ASCRIPTIN® A/D, EMETROL®, PERDIEM®, PERDIEM® PLAIN, SLO-PHYLLIN®, SLO-BID™, FE-DAHIST®, AZMACORT™, NITROL®, LEVSIN®, AND LEVSINEX®.

ROSS LABORATORIES **Booth 92**
625 Cleveland Avenue
Columbus, OH 43216
614/227-3571

ROSS LABORATORIES is pleased to share our choice of infant nutritionals. We'll be featuring SIMILAC®, SIMILAC WITH IRON®, and ISOMIL®, soy protein formula. ROSS will also be showing the ENSURE® plus high calorie liquid nutrition. We will be sharing our service and education items.

SANDOZ PHARMACEUTICALS **Booth 36**
Route #10
East Hanover, NJ 07936
201/386-7676

Sandoz Pharmaceuticals invites you to stop by our exhibit where our representatives will be pleased to provide information on our products or on educational materials that we have available.

W. B. SAUNDERS COMPANY **Booth 50**
West Washington Square
Philadelphia, PA 19105
215/574-4834

W. B. Saunders, the world's leading medical publisher, will have its representatives present to display its wide assortment of titles. Featured new releases will be Becker and Gazdar's *Endocrine Lung in Health and Disease*, Conn's *Current Diagnosis 7*, Creasy and Resnik's *Maternal-Fetal Medicine*, Fraunfelder and Roy's *Current Ocular Therapy II*, and Haskell's *Cancer Treatment*, 2nd. edition. These and many other titles will be on display at the W. B. Saunders booth.

SCHERING CORPORATION **Booth 34**
Kenilworth, NJ 07033
(or) 7106 Gunpowder Court
Prospect, KY 40059
502/228-3039

CLAYTON L. SCROGGINS ASSOCIATES, INC. **Booth 79**
200 Northland and Boulevard.
Cincinnati, OH 45264
513/771-7070

Professional practice management and financial planning for doctors exclusively. Currently over 900 active clients. Staff of over 160 qualified, experienced people, providing impartial counsel in a professional, comprehensive and confidential manner. Individualized determination of each client's needs on a fee-for-service basis, offering total objectivity on which our reputation depends. Services throughout Kentucky, Ohio and Indiana.

SEARLE LABORATORIES **Booth 44**
P.O. Box 5110
Chicago, IL 60680
312/470-6010

You are cordially invited to visit the SEARLE booth where our representatives will be happy to answer any questions regarding SEARLE products. Featured will be information on ALDACTAZIDE®, AS-DACTONE®, CU-7®, MARK-7™, TATUM-T™, DEMULEN®, CALAN™, DIULO™, FLAGYL®, FLAGYL-I.V.™, LOMOTIL®, NITRODISC™, NORPACE®, OVULEN®, PRO-BANTHINE®, THEO-24™, and other drugs of interest.

**SMITH KLINE & FRENCH
LABORATORIES**

Booth 63

P. O. Box 7929 - E22
Philadelphia, PA 19101
800/523-4835
215/751-4723

SMITH KLINE & FRENCH LABORATORIES will feature TAGAMET® (brand of cimetidine) and DY-AZIDE®, our trusted potassium-sparing oral diuretic/antihypertensive. Professional Sales Representatives will be available to answer questions and provide information on our products and services.

SOUTHERN MEDICAL ASSOCIATION Booth 73

P.O. Box 2446
Birmingham, AL 35201
205/323-4400

Southern Medical will have available information on the advantages of membership, such as continuing medical education: Dial Access, Video Access, Regional Postgraduate Conferences, Seminars on Malpractice and Payment Changes, the Annual Scientific Assembly, and the SOUTHERN MEDICAL JOURNAL. Also, material will be available on financial benefits to members, such as the IRA, Keogh Plan, Retirement and Insurance Programs, Universal Life, Research Project Fund, and Loans and Scholarships.

E. R. SQUIBB & SONS, INC.

Booth 29

P. O. Box 4000
Pinceton, NJ 08540
609/921-4623

U. S. AIR FORCE

Booth 85

3532 USAF Recruiting Sq.
NK FOR: F73RCH M1613
110 21ST Avenue South
Nashville, TN 37203

U. S. ARMY MEDICAL DEPARTMENT Booth 27

1900 Half Street, S.W.
Washington, DC 20324
202/693-1816

Physician placement service for the entire U. S. Army Medical Department will be providing information about the health professions scholarship program for medical students, about internship, residency, fellowship opportunities, and the abundance of placement opportunities for physicians in all specialties.

U. S. NAVY RECRUITING

Booth 51

600 Federal Place
Louisville, KY 40202
502/582-5174

The UNITED STATES NAVY presents a slide show featuring your NAVY under sea, at sea, in the air and on ashore. Information on the viable and challenging alternatives to private practice will also be available.

WALLACE LABORATORIES

Booth 72

Half Acre Road, P.O. Box 1
Cranbury, NJ 08512
609/655-6143

We invite you to visit our booth where the Wallace sales representatives will be pleased to furnish information regarding Wallace products and your related medical questions.

WESTWOOD PHARMACEUTICALS

Booth 71

100 Forrest Avenue
Buffalo, NY 14213
716/887-3400

WINTHROP-BREON LABORATORIES Booth 48

3600 Constantine
Prospect, KY 40059
502/228-4501

Winthrop-Breon Laboratories provides several excellent pharmaceutical products that are useful in "Sports Medicine." Complete prescribing information on DANOCRINE, TALWIN Nx., TALACEN, and MARCAINE are available. Several interesting and challenging programs are available on our Clinical Education Interactive Video equipment.

WYETH LABORATORIES

Booth 58

P.O. Box 8299
Philadelphia, PA 19101
215/341-2213

SCIENTIFIC EXHIBITS

State of the Art Therapy of End Stage Heart Disease, *JOHN THOMAS, M.D.*

Impotence: Diagnosis and Prosthetic Treatment, *MARK S. SEXTER, M.D.*

"Broncho Alveolar Lavage," *LEE JACKSON, M.D.*

Bronchial Carcinoid Tumor, *SIBU P. SAHA, M.D., GRAYDON A. LONG, M.D., and R. DALEY GOFF, M.D.*

Fine Needle Aspiration of the Breast, *STEWART E. WOLFSON, M.D., and WILLIAM T. RUMAGE, JR., M.D.*

The KMA has approved this program for 14½ hours Category 1 Credit. The KMA is accredited by the Accrediting Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. The specialty groups at the Annual Meeting are approved for Category 1 Credit. The total number of actual hours offered to physicians at the Annual Meeting will be in excess of 60 hours. Maximum number of hours a physician may obtain for three days attendance is 14½. Hours are determined by actual time at presentations, more than 14 minutes is rounded to the nearest half hour and more than 45 minutes is rounded to the next full hour.

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



YOUR COVERAGE . . .

is only as good as the service.

We have been insuring and servicing the disability income programs for the various professional groups in Kentucky since 1939.



SPECTRUM EMERGENCY CARE, Inc.

EMERGENCY MEDICINE

Part-time and full-time positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (8-60 hour shifts). For details write or call:

**Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214**

1-800-848-2938 / 614-457-9761

All inquiries will be kept confidential

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month two months preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

MEDICAL OPPORTUNITY

Family Practice-Board certified or board eligible Family Practitioner needed to join an established group. The group currently consists of a board certified general surgeon and two board certified family physicians. The office facility is a modern, spacious, well equipped and fully staffed practice setting. There is an adjacent 43 bed acute care hospital including 4-CCU beds and an attached 38 bed SNF. The practice setting is in the southern bluegrass region in Lincoln County. For further information write Fort Logan Clinic, P.S.C., 126 Portman Avenue, Stanford, Kentucky, 40484 or call Charles E. Crase, M.D. at 606-365-9181 office or 60-365-9707 home.

Kentucky licensed Ob-Gyn as locum tenens. Permanent position negotiable. Submit resume, references and schedules to: Physicians, Inc. P.O. Box 960, Ironton, Ohio 45638

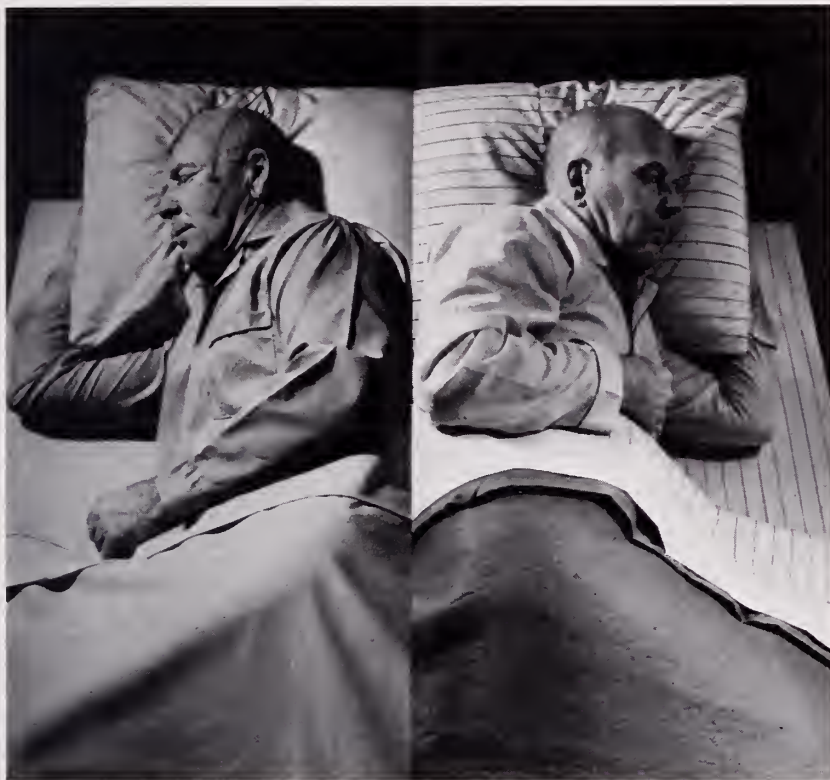
NEED A SPEAKER? . . .

**for your next hospital staff, county society or
other meeting?**

**Contact the KMA
Committee on Impaired
Physicians.**

(502) 459-9790

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵ ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY
CONFIRMED BY EXPERIENCE

DALMANE[®]

flurazepam HCl/Roche

THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights²⁻⁴
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE[®]
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE[®] ®
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

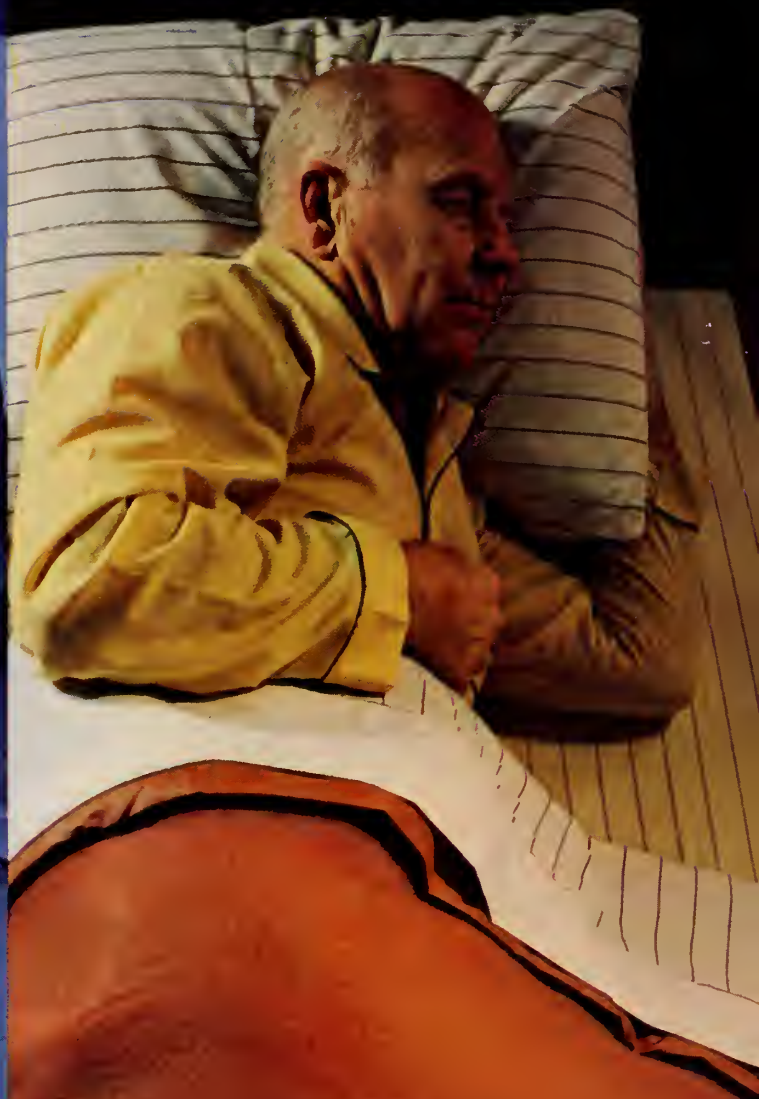
Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]
flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES



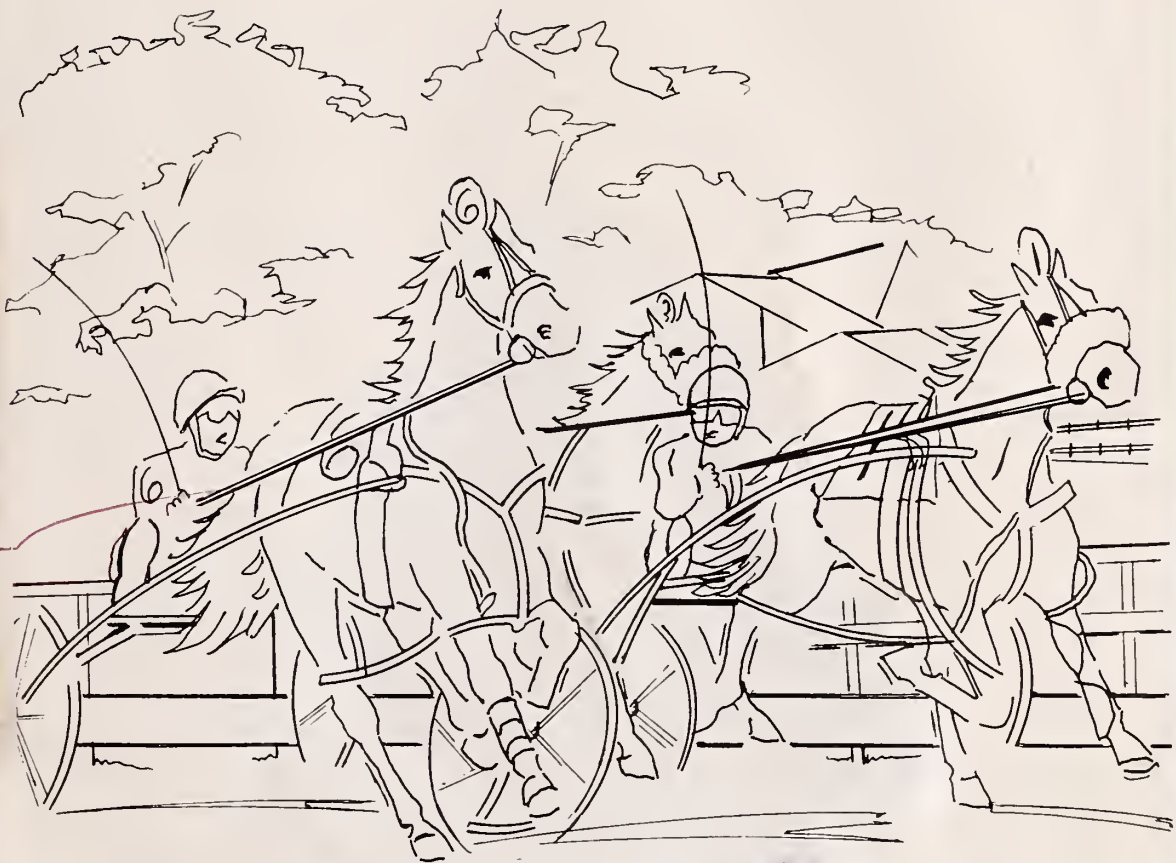
STACKS

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

SUB
Library of
College of Phys. of Phil.
10 South 22nd St.
Philadelphia, PA 19103



ANNUAL MEETING

Hyatt Regency - Lexington Center, Lexington

September 18-20, 1984

M. D. S.

PART OF THE
OF PHYSICIANS
PHILADELPHIA

SEP 19 1984

There's never been a better match.

When you bring two hospitals together who complement each other as well as Baptist Hospital East and Highlands Baptist, everybody benefits. It's because the two hospitals were carefully developed to be a system.

They share resources and technology. And they share one of the finest medical staffs in the region. Together, the two hospitals offer a broader range of services than any other hospital in

the area. Their services complement rather than duplicate, so they can meet a much broader range of needs.

And because the hospitals operate as a system, health care costs are lower — for everybody. Highlands Baptist Hospital and Baptist Hospital East: what could be a better match?

We invite you to join the staff of our family oriented health care system.



BAPTIST • HOSPITALS • INC.

A growing tradition

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 9

September 1984

SCIENTIFIC

- Saliva Lithium: Too Variable for Significant Plasma
Level Correlations
*Steven Lippmann, M.D., William Regan, M.D., Manoochehr
Manshadi, M.D. and Hillel Baldwin, B.Sc.* 451
- Tracheobronchomegaly (Mounier-Kuhn Syndrome)
Porter Mayo, M.D. 455
- Staphylococcal Pneumonia in Pediatric Practice
Michael W. Simon, M.D. and Peter Wong, M.D. 458
- Fractures of the Pelvis
New Methods of Diagnosis and Treatment
Mary L. Harty, M.D. and David Seligson, M.D. 470

EDITORIAL

- To Be Or Not To Be 465
- The Community Health Building 465

ASSOCIATION

- Emergency Medical Care Seminar 485
- Annual Meeting News 492
- Physician Recruitment Fair 492
- Kentucky Physicians Gather
to Update Medical Knowledge 493
- Kentucky Doctors Rank Among
Top U.S. Medical Specialists 493
- International Conference
on AIDS 495

REGULAR FEATURES

- President's Page 449
- Auxiliary 478
- Book Reviews 481
- Postgraduate Page 483

Cover by Martha S. Miller

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific; Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign, (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1983-84

Officers

President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334.....	1984
President-Elect	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5533.....	1984
Immediate Past President	DWIGHT L. BLACKBURN, M.D. P.O. Box 406, Berea, KY 40403 (606) 986-2323.....	1984
Vice President	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371	1984
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1984
Chairman, Board of Trustees.....	DONALD C. BARTON, M.D. Doctors' Park, Corbin, KY 40701 (606) 528-2124	1984
Vice Chairman	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145.....	1984
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, JR., M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1984
DONALD C. BARTON, Doctors Park, Corbin, 40701 (606) 528-2124	1985
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, 2005 Broadway, Paducah 42001 (502) 443-5371	1985
KENNETH P. CRAWFORD, 1000 Medical Arts Building, Louisville 40217 (502) 456-2180.....	1984
HAROLD L. BUSHEY, 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6143	1984

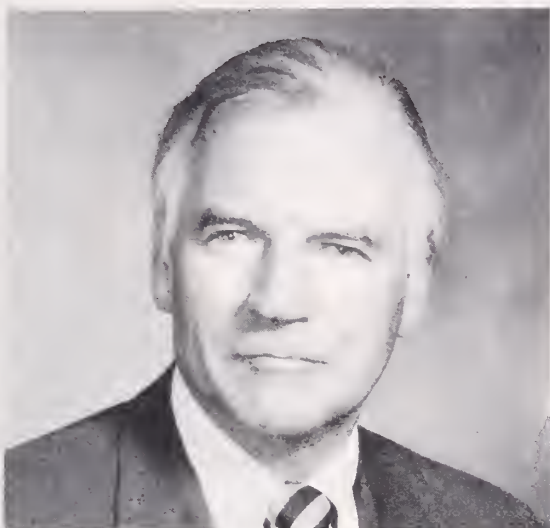
Trustees

1st	JOHN D. NOONAN, M.D., P.O. Box 7206, Paducah 42001 (502) 443-6472	1986
2nd	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265	1985
3rd	HENRY R. "HANK" BELL, M.D., East Main Street, Elktown 42220 (502) 265-2574	1986
4th.....	THOMAS R. TAYLOR, M.D., 914 North Dixie Avenue, Elizabethtown 42701 (502) 769-5551.....	1986
5th.....	BOB M. DeWEESE, M.D., 530 Andubon Medical Plaza, Louisville 40217 (502) 636-9216.....	1984
6th.....	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111.....	1984
7th.....	WILLIAM P. McELWAIN, M.D., 321 South Main Street, Lawrenceburg 40342 (502) 839-6981.....	1985
8th.....	ROBERT E. SMITH, M.D., One West 43rd Street, Covington 41015 (606) 431-3748	1984
9th.....	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th.....	RICHARD F. HENCH, M.D., 2370 Nicholasville Road, Lexington 40503 (606) 277-6145.....	1985
11th.....	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1984
12th.....	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th.....	GARNER E. ROBINSON, M.D., 700-Thirteenth Street, Ashland 41101 (606) 324-6181.....	1985
14th.....	RONALD D. HALL, M.D., Town and Country Center, Pikeville 41501 (606) 432-5532.....	1986
15th.....	DONALD C. BARTON, M.D., Doctors' Park, Corbin 40701 (606) 528-2124	1984

SEPTEMBER BUYERS' GUIDE FOR *JOURNAL OF KMA*

ADA Kentucky Affiliate	495	Eli Lilly & Co	477
Blue Cross/Blue Shield of Kentucky.....	461	Louisville Baptist Hospitals.....	446
Classified.....	496	Medical Protective Company	484
Computer Terminal Service	480	Physician Data Systems.....	482
General Leasing Corporation	496	Postgraduate Medicine	495
International Conferences.....	496	Roche Laboratories	488,489,490,497,498
Insurance Corporation of America.....	487	Spectrum Emergency Medicine.....	493
KMA Insurance Agency, Inc.....	462	U.S. Army.....	469
KMA Insurance Agency, Inc.....	494	U.S. Army National Guard	486
KMCO.....	475	U.S. Air Force	476
KMIC	450	Wyeth.....	466,467,468
A.P. Lee Agency, Inc	491	The Upjohn Company.....	463

PRESIDENT'S PAGE



All members of the Kentucky Medical Association who are not members of AMA recently received a letter from the writer urging them to join AMA. Please allow me to reiterate that appeal at this time. AMA does a great deal for every physician, both in scientific endeavors and in our interface with the public (particularly our interface with government.) In the letter it was noted that the AMA had received bad press universally since Truman first proposed Medicare in the early fifties. A lot of this has rubbed off and a good many physicians do not think the AMA does anything for them. One wonders where we would be today if it were not for this organization which does so much for American medicine and for our patients. Please join the AMA and share the small burden in dues being carried by your confreres.

This will be my final note as President to you. I want to express my gratitude for the courtesy shown to Kay and myself during the past year at various meetings and gatherings we have attended. The experience of being President of this organization is indeed a heartwarming one. One cannot help but feel proud of the quality of medicine practiced in this state and the care which we give our patients. However, we are going to be called upon to continue this at an even greater extent in the coming years because of reduced government spending. We must put our best foot forward and show the public that we do take care of our people, whether they pay or not. There are many ways we can reduce costs and still continue the high quality patient care we have traditionally delivered. Arrangements have been made

to have an article written by a good friend of mine, Mark Ravitch, M.D., mailed to you. The editorial recently appeared in *Surgical Rounds*. While it does have the typical surgeon's attitude towards our medical colleagues, hopefully those of you in family practice and internal medicine can bear the barbs with a smile.

I cannot leave without commenting how fortunate you are to have the staff of the Kentucky Medical Association. In my opinion, not another medical staff in the country can compare. I have had opportunities to talk with physicians from other states during the year, and no other state society does for them what our staff does for us. Those of you who have not had close contact with our state organization in the past few years are really not aware of the ferment that goes on in the headquarters office, and the hours spent on behalf of all physicians. The same can be said for the staffs of the Kentucky Medical Insurance Company, Kentucky Physicians Credit Union and the new Physicians Management Company which is going to play a more prominent part in your lives as time goes on. I hope that you avail yourself of our insurance company, our credit union, and our management services.

In conclusion, let me urge you all to come to Lexington for the KMA Annual Meeting in September. Being a partisan from the Bluegrass, I can tell you that we are going to offer a fine program. There will be plenty for the spouses to do; the hotel accommodations are first class, and the Symposium on Sports Medicine will be unrivaled. I look forward to seeing you in Lexington in September.

J.B. Holloway, Jr., M.D.
KMA President

**as one physician
to another. . .**



**"Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?"**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company · P.O. Box 35880 Louisville, Ky. 40232

TOLL FREE 1-800-292-1858 · Louisville Area 459-3400

Saliva Lithium Too Variable for Significant Plasma Level Correlations

STEVEN LIPPMANN, M.D., WILLIAM REGAN, M.D.

MANOOCHHR MANSHADI, M.D. AND HILLEL BALDWIN, B.SC.

Sixty matched pair samples of saliva and plasma were assayed for lithium concentration by flame photometry. Poor inter- and intra-patient correlations between saliva and plasma lithium levels were documented. The variation of the saliva-to-plasma ratio was too great to recommend saliva monitoring of lithium patients. Re-analysis of the same samples one year later, by atomic absorption spectrophotometry, revealed still greater lithium saliva-to-plasma variability. Plasma assays revealed essentially the same results as the previous analysis, but saliva levels were more variable.

The presence of lithium in saliva after lithium ingestion was established early this century.³ Since 1969, monitoring lithium patients with saliva samples has been discussed.^{14,18} A technique to monitor lithium levels in saliva rather than blood seemed promising.¹⁶

In the mid-1970's, investigators reported lithium level correlations between saliva and blood reliable enough to monitor patients with saliva samples alone.^{1,9,19} Because of variability in saliva/serum or saliva/plasma ratios, it was suggested that ratios be calculated for each individual, with several different saliva samples.^{1,2,4,9}

Unreliability of the technique was also discussed. The salivary method was questioned,¹ and the saliva to plasma ratio variations thought too great to make the results dependable.^{2,17} Despite studies documenting correlations adequate for clinical use, salivary results were less accurate than those from blood.^{1,11,12}

Since these initial studies, controversy continued. Despite reproducible correlations occurring, individual variability made the technique less reliable.⁸ Variability was demonstrated in saliva lithium concentrations collected just 15 minutes apart.²⁰ The technique was recommended only in stabilized conditions and when individually calculated saliva-to-serum ratios were available.¹³ Some investigators, however, reported good correlations and applicability of monitoring patients by salivary means.^{7,10}

This study investigates the practical usefulness of monitoring lithium patients by saliva assays in a conventional setting. The null hypothesis states that lithium determinations from saliva are unreliable in reflecting plasma lithium concentrations.

Method

Thirty-eight hospitalized psychiatric patients were studied. Psychiatric diagnoses included bipolar and schizoaffective disorders, and a few patients with impulse control disorder or recurrent major depression (DSM III). The patients received neuroleptic, anticholinergic, and/or antidepressant drugs, with routine indications throughout the study. Samples of saliva and blood were simultaneously collected up to five times from each patient. The protocol was practical and uniformly available.

Plasma lithium levels were ordered according to usual indications and collected by laboratory personnel each morning of specimen collection. A 5-10 milliliter blood sample was taken and centrifuged; plasma was aspirated. Saliva samples were simultaneously collected by asking the patient to spit in a preweighed, sterile cup.

TABLE 1

Lithium Analysis by Flame Photometry

No. of Sample	Saliva mEq/l	Plasma mEq/l	Saliva/Plasma Ratio	No. of Sample	Saliva mEq/l	Plasma mEq/l	Saliva/Plasma Ratio
1	1.1	.9	1.20	31	2.2	1.0	2.20
2	1.1	.9	1.20	32	2.2	.9	2.40
3	1.1	.8	1.38	33	2.2	.9	2.44
4	1.1	.8	1.38	34	1.1	.4	2.75
5	1.1	.8	1.38	35	2.2	.8	2.75
6	1.1	.8	1.38	36	1.1	.4	2.75
7	1.1	.8	1.38	37	2.2	.8	2.75
8	1.1	.7	1.57	38	2.2	.8	2.75
9	1.1	.7	1.57	39	1.1	.4	2.75
10	1.1	.7	1.57	40	1.1	.4	2.75
11	1.1	.7	1.57	41	2.2	.8	2.75
12	2.2	1.2	1.83	42	3.3	1.1	3.00
13	1.1	.6	1.83	43	2.2	.7	3.14
14	1.1	.6	1.83	44	2.2	.7	3.14
15	1.1	.6	1.83	45	2.2	.7	3.14
16	1.1	.6	1.83	46	2.2	.7	3.14
17	1.1	.6	1.83	47	2.2	.7	3.14
18	1.1	.6	1.83	48	3.3	1.0	3.30
19	1.1	.6	1.83	49	3.3	1.0	3.30
20	2.2	1.1	2.00	50	2.2	.6	3.60
21	2.2	1.1	2.00	51	2.2	.6	3.67
22	1.1	.5	2.20	52	2.2	.6	3.67
23	1.1	.5	2.20	53	1.1	.3	3.67
24	1.1	.5	2.20	54	2.2	.6	3.70
25	1.1	.5	2.20	55	3.3	.8	4.13
26	1.1	.5	2.20	56	2.2	.5	4.40
27	1.1	.5	2.20	57	2.2	.5	4.40
28	1.1	.5	2.20	58	3.3	.7	4.71
29	1.1	.5	2.20	59	4.4	.6	7.30
30	2.2	1.0	2.20	60	4.4	.6	7.30

n = 60

Saliva/Plasma Ratio Range 1.20-7.30

Ratio Mean = 2.65

Ratio Sd = 1.22

Correlation $r(58) = 0.29$

p = 0.025

Patients had taken nothing by mouth since the previous midnight. No salivary stimulation was used. Two to three milliliters of saliva were collected and diluted 3:1 (per weight basis) with double-distilled water. Sixty plasma samples were immediately assayed for lithium by flame photometry (FP). The matched saliva samples were capped and refrigerated for FP analysis after collection of all samples.

After the FP analysis, all matched pair saliva and plasma aliquots were stored and re-analyzed for data reconfirmation one year later by atomic absorption spectrophotometry (AAS). Samples were capped, refrigerated, later frozen and then thawed under refrigeration. Six samples were lost. The FP lithium assay results were not available to the AAS technician.

Results

Sixty matched pair saliva and plasma FP lithium assays are presented in Table I; plasma lithium levels ranged from 0.3 - 1.2 mEq/l, with the saliva range being 1.1 - 4.4 mEq/l. The saliva/plasma ratio range was 1.2 - 7.3, with mean = 2.65 and Sd = 1.22. The correlation coefficient was poor, $r = 0.29$ ($p = 0.025$). A paired t-test analysis showed that the paired differences were $t = 10.21$ with mean = 1.08 ($p < 0.00005$). Confidence intervals for 95% of the samples were 0.87 - 1.30. With such poor correlations between lithium determinations in simultaneously collected saliva and plasma, the null hypothesis is accepted; in this study, lithium determinations from saliva samples were not reliable in reflecting plasma concentrations.

As seen in Table II, the 54 AAS lithium determinations ranged from 0.24 - 1.17 mEq/l in plasma, and from 0.60 - 11.50 mEq/l in saliva. The saliva/plasma ratios ranged from 0.85 - 18.61, with mean = 6.12 and Sd = 4.27. The correlation coefficient was poor,

TABLE II
Lithium Analysis by Atomic Absorption Spectrophotometry

No. of Sample	Saliva mEq/l	Plasma mEq/l	Saliva/Plasma Ratio	No. of Sample	Saliva mEq/l	Plasma mEq/l	Saliva/Plasma Ratio
1	.60	.70	.85	28	3.48	.74	4.70
2	0.90	.64	1.40	29	3.25	.65	5.00
3	2.22	1.02	2.17	30	1.20	.24	5.00
4	1.20	.51	2.35	31	3.78	.72	5.25
5	1.80	.70	2.57	32	4.26	.80	5.32
6	2.34	.88	2.65	33	3.90	.72	5.41
7	2.22	.82	2.70	34	4.20	.77	5.45
8	1.92	.68	2.82	35	2.46	.47	5.50
9	2.82	1.00	2.82	36	3.18	.57	5.57
10	3.30	1.11	2.97	37	3.15	.54	5.83
11	2.22	.71	3.12	38	2.76	.47	5.87
12	2.94	.90	3.26	39	2.46	.41	6.00
13	2.04	.60	3.40	40	3.30	.54	6.11
14	2.76	.80	3.45	41	3.06	.48	6.37
15	2.64	.74	3.56	42	4.86	.68	7.14
16	4.02	1.08	3.72	43	4.14	.55	7.52
17	2.46	.65	3.78	44	4.62	.55	8.40
18	4.44	1.15	3.86	45	3.12	.32	9.75
19	1.44	.37	3.89	46	5.25	.48	10.93
20	1.38	.35	3.94	47	6.90	.62	11.12
21	1.80	.45	4.00	48	11.50	.92	12.50
22	2.70	.67	4.02	49	5.00	.38	13.15
23	1.38	.34	4.05	50	4.32	.30	14.40
24	2.64	.65	4.06	51	4.00	.25	16.00
25	3.48	.82	4.24	52	5.22	.30	17.40
26	4.05	.92	4.40	53	8.20	.47	17.44
27	5.22	1.17	4.46	54	8.75	.47	18.61

n = 54

Saliva/Plasma Ratio Range 0.85-18.61

Ratio Mean = 6.12

Ratio Sd = 4.27

Correlation $r(52) = 0.11$

p = 0.42

$r = 0.11$ ($p = 0.42$). A paired t-test analysis showed paired differences of $t = 10.56$, with mean = -2.28 ($p < 0.00005$). Confidence intervals for t-test differences for 95% of the samples were $-3.36 - -2.29$. Despite excellent agreement between FP and AAS plasma lithium assays, the AAS saliva data showed greater variability than FP measured levels.

Discussion

The convenience of monitoring lithium patients by saliva sampling is appealing; some researchers have found the technique valuable.^{7,9-12,16,19} There are, however, reports that demonstrate unreliable saliva-to-plasma ratios,^{8,17,20} and variability in same-patient saliva lithium levels collected only minutes apart.²⁰ Saliva lithium determinations are less reliable than those from blood; inter- and intra-patient variability in the saliva-to-plasma lithium ratio is documented.^{1,2,11-13} Individ-

uals with satisfactory correlations are found, but attention is required to identify them.^{1,2,4,9,11,13} Analysis of multiple saliva samples improves assay dependability.² A consensus about saliva lithium level validity is not achieved.¹⁵ This may relate to the infrequent application of this otherwise attractive technique.

This study corroborates saliva lithium assay unreliability. The project was an uncomplicated test of saliva lithium monitoring in daily practice. In considering sources of error, problems would most likely lie with the saliva data. Plasma results appear to be accurate, since plasma analysis by FP and AAS revealed essentially the same results.⁶ Saliva AAS results were more variable and not consistent with FP saliva assays.

Why the saliva data is less reproducible is unknown. If the data is flawed, error may be associated with saliva sample dilution and/or varying degrees of evaporation between specimen collection and determination. The time lag in the FP saliva analysis might account for inconsistency (*eg* varying equipment calibration); however, AAS analysis of saliva and plasma was simultaneous. Error might occur through changes in the saliva (*eg* bacterial infestation, interference by high potassium content, drug effects, *etc.*).

SALIVA LITHIUM—Lippman et al

Co-administration of drugs other than lithium may cause variation in saliva lithium concentrations. Lithium level stability is reported over wide saliva flow rates,⁴ and with different medications,¹¹ but drug-induced anticholinergic mechanisms do affect saliva flow and might alter lithium concentrations. This study was a practical investigation to test clinical applicability in routine circumstances. Patients received medications with anticholinergic effects. Standard pharmacotherapies were applied specifically to test the every-day usefulness of the technique.

A literature review shows almost every study using different methods.^{1,2,4,7-14,16-20} Procedures differed in collection, processing, and analysis. Because of these variations, each study may itself be valuable, but not comparable. Such criticism can be leveled here. Replication experiments should use identical methods if true comparisons are expected.⁵

Saliva assays are not generally recommended as a dependable means of lithium monitoring. Since saliva lithium levels are not uniformly considered reliable, the technique requires more evaluation before being applied clinically. Selected patients, however, with well-controlled, individually verified, constant saliva-to-plasma lithium level correlations may qualify for the saliva method.

References 1. Chick J: Saliva lithium estimation. *Br J Psychiatry* 130:524, 1977. 2. Evrard JL, Baumann P, Pera R and Peters-Haefeli L: Lithium concentrations in saliva, plasma and red blood cells of patients given lithium acetate. *Acta Psychiatr Scand* 58:67-79, 1978. 3. Good CA: An experimental study of lithium. *Am J Med Sci* 125:273-284, 1903. 4. Groth U, Prellwitz W and Jahnchen E: Estimation of Pharmacokinetic parameters of lithium from saliva and urine. *Clin Pharmacol Ther* 16:490-498, 1974. 5.

Lippmann S and Regan W: On Making Clinical Research Count. *South Med J* 74:349-352, 1981. 6. Lippmann S, Regan W and Manshadi M: Plasma lithium stability and a comparison of flame photometry and atomic absorption spectrophotometry analysis. *Am J Psychiatry* 138:1375-1377, 1981. 7. Man PL: Correlation of saliva and serum lithium. *Psychosomatics* 20:758-759, 1979. 8. Mathew RJ, Claghorn JL, Fenimore D, Davis C and Weinman M: Saliva lithium and lithium therapy. *Am J Psychiatry* 136:851, 1979. 9. Neu C, Dimascio A and Williams D: Saliva lithium levels. Clinical applications. *Am J Psychiatry* 132:66-68, 1975. 10. Othmer E, Powell B, Piziak V and Preskorn SH: Prospective use of saliva lithium determinations to monitor lithium therapy. *J Clin Psychiatry* 40:525-526, 1979. 11. Preskorn SH, Abernethy DR and McKnelly WV: Use of saliva lithium determinations for monitoring lithium therapy. *J Clin Psychiatry* 39:33-35, 1978. 12. Ravencroft P, Vozeh S, Weinstein M and Sheiner LB: Saliva lithium concentrations in the management of lithium therapy. *Arch Gen Psychiatry* 35:1123-1127, 1978. 13. Rosman AW, Sczupak CA and Pakes GE: Correlation between saliva and serum lithium levels in manic-depressive patients. *Am J Hosp Pharm* 37:514-518, 1980. 14. Shopsin B, Gershon S and Pinckney L: The secretion of lithium in human mixed saliva: Effects of ingested lithium on electrolyte distribution in saliva and serum. *Int Pharmacopsychiatry* 2:148-169, 1969. 15. Sims A: Monitoring lithium dose levels: Estimation of lithium in saliva. In Johnson, F. N., Ed. *Handbook of Lithium Therapy*, pp. 200-204. University Park Press, Baltimore, 1980. 16. Sims A and White AC: Saliva and serum lithium estimations in psychiatric patients. *Br J Psychiatry* 124:106-107, 1974. 17. Sims A, White AC and Garvey K: Problems associated with the analysis and interpretation of saliva lithium. *Br J Psychiatry* 132:152-154, 1978. 18. Spring KR and Spirtes MA: Salivary excretion of lithium: human parotid and submaxillary secretions. *J Dent Res* 48:546-549, 1969. 19. Verghese A, Indrani H, Kuruvilla K and Hill PG: Usefulness of saliva lithium estimation. *Br J Psychiatry* 130:148-150, 1977. 20. Vlaar H, Bleeker JAC and Schalken HFA: Comparison between saliva and serum lithium concentrations in patients treated with lithium carbonate. *Acta Psychiatr Scand* 60:423-426, 1979.

*From University Hospital, 5E 530 South Jackson Street
Louisville, KY 40292*

Tracheobronchomegaly (Mounier-Kuhn Syndrome)

PORTER MAYO, M.D.

Tracheobronchomegaly is a rare congenital disease characterized by extremely large central airways and nearly always associated with recurrent bouts of bronchitis and pneumonitis. The structural defect is believed to be the result of a deficiency of the connective tissue. Clinically, the symptoms are those of bronchiectasis. Treatment is primarily medical.

Tracheobronchomegaly (TBM) is a rare congenital disease characterized by an extremely large and collapsible trachea, main bronchi and segmental bronchi. The descriptive term, tracheobronchomegaly, was aptly applied by Katz(1962).¹ TBM was first noted in the 19th century on postmortem examinations,² but it was not until 1932 that Mounier-Kuhn³ first described the disease clinically. In a review of the world literature, Himalstein and Gallagher⁴ (1973) found only 70 cases. Even so, they reported a 1% incidence of tracheobronchomegaly in their review of 500 bronchograms and were of the opinion that the true incidence is greater than generally recognized.

The clinical picture is most often manifest by signs and symptoms of chronic respiratory tract disease. Cough, copious and purulent sputum and dyspnea are usually present, but do not distinguish the syndrome from a host of other respiratory diseases. The disease often begins in childhood and is thought to be due to a congenital defect of the elastic and muscle fibers of the tracheobronchial tree. One further mechanism offered to explain the airway dilatation is the observation of a deficient to absent myenteric plexus in the tracheal wall.⁵ The collapsible airway impedes mucociliary clearance, promotes the pooling of secretions in the expansive airways, and predisposes the patient to chronic and repeated pulmonary infections.⁶ The finding by Johnson and Green⁷ (1964) of two documented cases of TBM within the same family gives further credence to the theory of a congenital etiology, and to its transmission as an autosomal recessive trait. Inflammation, as an aggravating factor, plays an important role; however,

chronic infection is merely a complicating element, a result and not a cause.^{1,7} Two generalized connective tissue disorders, Ehlers-Danlos syndrome^{9,10} and cutis laxa¹¹ have been reported in association with TBM. Pulmonary function studies show an enlarged dead space, impaired pulmonary mixing and decreased diffusion capacity.^{7,11,12}

Tracheobronchomegaly usually becomes evident in patients during their twenties and thirties as recurrent bronchitis and pneumonitis. In a review of 55 published cases, Bateson⁸ reports a strong male predominance(52 of 55 patients). Bronchiectasis has been noted in 43% of patients with TBM.⁷

The diagnosis of tracheobronchomegaly may be made from the routine frontal chest radiograph, but usually is unsuspected until revealed by tracheobronchial mapping.^{1,6} The trachea, by radiographs, not only spans the width of the thoracic vertebra, but visibly overlaps to the right. (Figure 1A) The wide tracheal air column is often best seen on the lateral projection. (Figure 1B) Katz *et al*¹ established the normal transverse mean diameter of the trachea and main stem bronchus: trachea 20.2 mm. (SD 3.4 mm.), the right main bronchus 16.0 mm. (SD 2.6 mm) and the left main stem bronchus 14.5 mm (SD 2.8 mm.) and compared them with the dimensions seen in patients having TBM. They showed that in tracheobronchomegaly the airway diameters generally exceeded the normal by more than three standard deviations. Himalstein and Gallagher⁴ corroborated these figures, indicating that the diagnosis should be suspected when the transverse diameter exceeds the following: trachea 25 mm.; right main bronchus 23 mm.; and left main bronchus 20 mm.

Case Report

This 38-year-old man complained of severe cough and dyspnea. He expectorated from two to six ounces of foul, yellow and green sputum per day. Wheezing, weight loss and weakness compounded his illness. Characteristically, he had a history of recurrent pneumonitis and during the prior three years experienced



Fig. 1A: Posteroanterior roentgenogram showing a grossly enlarged trachea, right pneumonic infiltrate and post-thoracotomy regeneration of the right sixth rib.

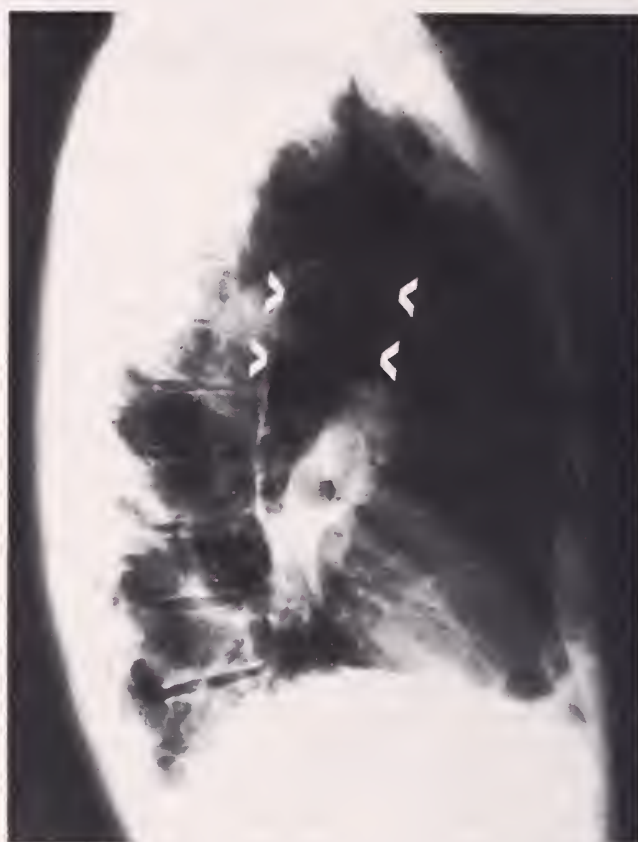


Fig. 1B: Lateral chest roentgenogram showing wide tracheal air column.

25 hospital admissions due to respiratory infections.

Bronchoscopy showed a gigantic tracheal lumen which, at first, led to difficulty in determining the precise position of the bronchoscope. Bronchial mapping delineated the cavernous trachea, main stem bronchi and distal impressions of saccular bronchiectasis. A 2½ hour delay film disclosed contrast material pocketed in the bronchiectatic sacs of the right middle and lower lobes and to a lesser extent in the left lower lobe.

The transverse diameter of the lower position of the trachea measured 50 mm. On lateral projection the air column measured 35 mm.

Right thoracotomy was performed with resection of the middle and lower lobes. Tissue sections showed the exaggerated, dilated and thickened bronchi, the lumens containing purulent exudate and mucous plus. Atelectasis and zones of inflammatory consolidation were noted throughout the lung. During the first three post-operative years, the patient had far fewer bouts of pneumonitis, but within five years repetitive respiratory infections were once again experienced.

Discussion

Therapy is primarily medical, limited to liquefaction of secretions and intensive antibiotic therapy. Patients require routine postural drainage and percussion to facilitate evacuation of the copious, purulent secretions. Even with optimal care, pulmonary infections carry a worse prognosis when co-existing with TBM. Bronchoscopy and tracheostomy may be beneficial in some cases to reduce an excess of bronchial secretions. In selected cases surgical resection of the associated bronchiectasis can be useful; however, the generalized nature of the disease limits the possible benefits. The prognosis corresponds with the efficiency of bronchial clearing.¹³⁻¹⁷

Himalstein and Gallagher¹ state that, "The diagnosis of tracheobronchomegaly may be overlooked unless the condition is specifically considered," therefore, it is imperative to watch for this relatively rare and unappreciated cause of recurring bronchitis and pneumonitis - even in an older patient.^{6,15}

TRACHEOBRONCHOMEGALY—Mayo

- References** 1. Katz I, LeVine M, Herman P: Tracheobronchomegaly: The Mounier-Kuhn syndrome. *AJR* 88:1084-1094, 1962. 2. Czyhlarz ER: Ueber ein Pulsiondivertikel der Trachea mit Bemerkungen über das Verhalten der elastischen Fasern an normalen Tracheen und Bronchien. *Centralb allg path anat* 8:721-728, 1897. 3. Mounier-Kuhn P: Dilation de la trachee: Constataions radiographiques et bronchoscopiques. *Lyon Med* 150:106-109, 1932. 4. Himalstein MR, Gallagher FC: Tracheobronchomegaly. *Ann Otol Rhinol Laryngol* 82:223-227, 1973. 5. Diaz CJ: Un caso de megatraquea idiopatica con traque-malacia. *Rev Clin Esp* 1:432-433, 1940. 6. Rao LC, Martinez-Catinchi FL: Recurrent Bibasilar Infiltrates. *Chest* 78:489-490, 1980. 7. Johnston RF, Green RA: Tracheobronchomegaly: Report of five cases and demonstration of familial occurrence. *Am Rev Respir Dis* 91:35-50, 1965. 8. Bateson EM, Woo-Ming M: Tracheobronchomegaly. *Clin Radiol* 24:354-358, 1973. 9. Aaby GV, Blake HA: Tracheobronchiomegaly. *Ann Thorac Surg* 2:64-70, 1966. 10. Husebye KO, Getz K: Ehlers-Danlos syndrome: Correlation of clinical and histopathological findings. *Arch Derm* 78:732-739, 1958. 11. Wanderer AA, Ellis FE, Goltz RW, et al: Tracheobronchomegaly and acquired cutis laxa in a child: Physiologic and immunologic studies. *Pediatrics* 44:709-715, 1969. 12. Fiser F, Tomanek A, Rimanova V, et al: Tracheobronchomegaly. *Scand J Respir Dis* 50:147-155, 1969. 13. Guest JL, Anderson JN: Tracheobronchomegaly (Mounier-Kuhn syndrome). *JAMA* 238:1754-1755, 1977. 14. Reisz G, Rosa U, Pingleton SK: Tracheobronchomegaly causing recurrent pneumonia. *JAMA* 246:1705-1706, 1981. 15. Ratliff JL, Campbell GD, Reid MV: Tracheobronchomegaly: Report of two cases with widely differing symptomatology. *Ann Otol Rhinol Laryngol* 86:172-175, 1977. 16. Beachley MC, Ghahremani GG: Tracheobronchomegaly (Mounier-Kuhn Syndrome). *South Med J* 69:1228-1229, 1976. 17. Levowitz, BS, Khalil G, Hughes RE, Conant JS, Weiss M: Tracheobronchomegaly and chronic pulmonary disease. *Dis Chest* 46:498-502, 1964.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Staphylococcal Pneumonia In Pediatric Practice

MICHAEL W. SIMON, M.D. AND PETER WONG, M.D.

S. aureus infection of the lungs can be primary, secondary or may occur as part of a disseminated illness. We report a case to call attention to the various forms of disease and appropriate management.

Primarily pneumonia due to *Staphylococcus aureus* is generally a disease of infancy and early childhood. It may also be seen in adults under certain conditions. At any age, it can be a rapidly progressive disease. Pulmonary infection with *S. aureus* may also occur secondary to septic embolization from a primary focus elsewhere, as is seen in parenteral drug abusers and other patients with right-sided bacterial endocarditis. On occasion, a specific extra-pulmonary site of primary infection may not be readily apparent and staphylococcal pneumonia is then seen as part of a generalized disseminated disease involving multiple organ systems. This case is reported to call attention to the manifestations and management of staphylococcal infection of the lungs during infancy and childhood.

Case Report

A 13-year-old male known to have a small ventricular septal defect since infancy, had been well until the onset of an acute illness, characterized by symptoms of headache, recurrent vomiting and fever to 103.9°F orally. Cephalexin and promethazine were prescribed at the emergency room of a local hospital although a primary source of infection was not readily evident. A nonproductive cough developed after two days. He was taken to his physician a week later because of persistent fever, vomiting and anorexia. Amoxicillin was prescribed for bilateral pneumonia. A chest x-ray showed minimal findings. The cough became productive of thick yellow sputum. He was not brought back to his physician until two to three weeks after the onset of his illness. This time he was admitted to the local hospital because of high fever, toxicity, cyanosis and respiratory distress. IV aqueous penicillin-G was begun and oxygen was administered. Therapy was changed to IV naf-

cillin when blood cultures became positive for *S. aureus* on the third day. Four subsequent blood cultures also became positive but additional cultures thereafter were sterile. Serial chest x-rays demonstrated multi-focal infiltrates throughout both lung fields progressing to multiple pneumatoceles, some with air-fluid levels. A barium enema and liver and spleen scans were performed to evaluate complaints of right-sided abdominal pain and diarrhea. These were normal. Other laboratory studies which were negative included a TB skin test, legionella and fungal serologies. He had complained of some right hip and back pain initially, but was not thought to have findings suggestive of osteomyelitis or septic arthritis.

Admission urinalysis showed microscopic hematuria and a low grade proteinuria which persisted. Hypoalbuminemia with an associated low serum calcium was also noted during his initial hospital course. Packed red blood cell transfusion was required for correction of anemia secondary to infection. Following stabilization after two weeks of intravenous nafcillin therapy, he was transferred to the University of Kentucky Medical Center for an immunologic evaluation and to rule out other occult infective lesions such as bacterial endocarditis. Upon arrival, he was noted to be chronically ill without respiratory distress. Physical examination was remarkable only for a Grade III/VI holosystolic ejection murmur along the left sternal border, basilar rales over both lung fields, questionable mild limitation of range of motion at the right hip joint on abduction and extension, and brisk deep tendon reflexes of his lower extremities with ankle clonus. Laboratory studies at our hospital included an echocardiogram, EKG, repeat liver and spleen scan, renal scan and a CT scan (head). All were within normal limits. Hip x-rays showed an equivocal increase in the right hip joint space by 1 mm over the left side. However, the bone scan was normal and his subsequent clinical course ruled out septic arthritis or osteomyelitis. An immunologic workup which included an NBT test, chemotaxis, complete complement profile, skin tests, quantitative immunoglobulins and IgE showed no evidence for immunodeficiency. Since the *S. aureus* isolate from his blood

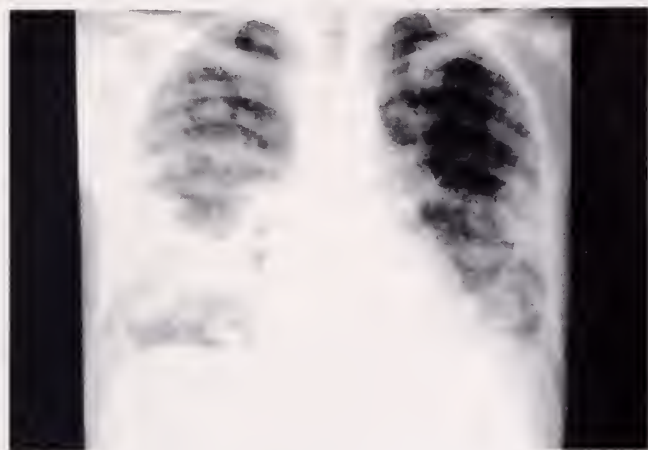


Fig. 1. Chest x-ray showing multifocal infiltrates compatible with septic embolization to the lungs.

cultures was no longer available, quantitative antibiotic susceptibility testing and serum bactericidal tests were not done. Although the echocardiogram did not show evidence of valvular vegetations, a presumptive diagnosis of right-sided bacterial endocarditis with secondary septic embolization to his lungs was made. The abnormal findings of urinalysis were thought to be the result of embolic nephritis associated with bacterial endocarditis. Therapy with IV nafcillin was continued for a total of six weeks. He was sent home on an additional two weeks of oral cloxacillin because of persistent moderate elevation of the sedimentation rate. The patient has continued to do well at subsequent followup visits.

Discussion

Primary staphylococcal pneumonia is usually seen in the setting of infancy and childhood. Although accurate estimates of incidence are not available, approximately two-thirds of cases occur in the first year of life. Predisposing factors which have been described include antecedent viral respiratory illness (influenza, measles) and skin infections (boils, impetigo). As mentioned earlier, *S. aureus* infection of the lungs may also be secondary. Secondary disease occurs as a consequence of hematogenous seeding or septic embolization from an extra pulmonary primary site of infection. This is seen perhaps most commonly in parenteral drug abusers and right-sided bacterial endocarditis in patients with ventricular septal defect or patent ductus arteriosus. Hieber, *et al*, have recently called attention to the occurrence of acute disseminated staphylococcal disease in children where pulmonary involvement may be part of the syndrome.¹ These authors define disseminated disease as infection of two anatomically distinct sites **plus** the

blood stream caused by coagulase-positive *S. aureus*. Organ systems involved included the lungs, bone and joint, skin and muscle, heart, kidney and central nervous system. The illness tends to occur in older children whether pulmonary infection is secondary or is seen as part of a disseminated syndrome. In a recent report by Chartrand and McCracken, Jr., the median age for cases of secondary pneumonia was 5.5 years in contrast to a median age of 0.6 year for primary staphylococcal pneumonia.² Fever and respiratory distress were the most common presenting symptoms of primary pneumonia while fever, a toxic appearance and musculoskeletal pain were the major symptoms in secondary or disseminated disease. Bilateral disease on chest x-ray was seen more commonly in secondary pneumonia, 72% versus 39% for patients with primary pneumonia. On the other hand, effusions on chest x-ray were more common in patients with primary pneumonia, 80% in primary versus 61% for secondary disease. Rapid progression of roentgenographic findings in the first 24 to 36 hours associated with worsening of the clinical condition was a predominant feature of primary staphylococcal pneumonia. *S. aureus* was isolated from blood cultures in 29% of patients with primary disease and 89% of those with secondary or disseminated disease. Overall, the case fatality rate was 25%.

Our patient had an underlying ventricular septal defect and in all probability developed right-sided bacterial endocarditis. This led to his subsequent clinical presentation of "pneumonia." The chest x-ray picture which evolved was typical of septic embolization to the lungs (figure 1). Although the diagnosis of bacterial endocarditis could not be substantiated by echocardiography, it is difficult to account otherwise for the continuous bacteremia (five of five blood cultures were positive), the chest x-ray picture and the persistent hematuria. When bacterial endocarditis develops in a patient with a ventricular septal defect, the vegetations are usually found on the mural endocardium opposite the VSD or around the margins of the VSD on the right side, or on the tricuspid valve. Bacterial endocarditis caused by *S. aureus* has also been seen in patients without pre-existing heart lesions. Presumably this occurs because of the high grade virulence of the organism. While echocardiography can be helpful in making the diagnosis, the exact sensitivity and specificity of the technique are not clearly known.³

Adequate and appropriate management of serious staphylococcal disease requires hospitalization and consideration of all potential complications. Hieber, *et*

STAPHYLOCOCCAL PNEUMONIA—Simon and Wong

al, in their report on acute disseminated staphylococcal disease noted an average of 3.38 infected sites per patient.¹ Fifty percent of the lesions were not discovered for days to weeks after initiation of antimicrobial therapy and one-third of the lesions were noted for the first time at autopsy. They found repeated physical examinations and appropriate studies such as chest and bone x-rays, intravenous pyelograms, and radionuclide scans to be helpful in detecting the sites of infection. Approximately two-thirds of their patients had continued positive blood cultures for several days after the initiation of effective antimicrobial therapy. While prolonged bacteremia increases the risk of metastatic abscesses, persistent bacteremia should also raise suspicion of hematogenous seeding from occult or inadequately drained abscesses. Serial blood cultures are necessary in the management of these patients to demonstrate clearing of the bacteremia. Pulmonary complications which have been described following infection of the lungs include pneumothorax, empyema, bronchiectasis, subpleural emphysema and fibrothorax.^{4,5} When a pleural effusion is demonstrable by chest x-ray, thoracentesis should be performed for therapeutic and diagnostic purposes. A chest tube should be placed if the fluid is purulent or free air is obtained, and continued until the drainage clears.^{6,7} Progression of disease should be followed by serial chest x-rays. Empyema, when promptly and properly drained, usually resolves without sequelae. Fibrothorax rarely occurs. Chartrand & McCracken, Jr. noted that for patients with empyema, mortality rate doubled if drainage was ineffective or not performed.² Long term prognosis of patients with staphylococcal pneumonia, however, is encouraging with gradual resolution of disease on chest x-ray and normal pulmonary function.^{4,5,8}

Antibiotic susceptibility testing is recommended for all *S. aureus* isolates in the management of these patients, to rule out antibiotic tolerance and methicillin

resistance.⁹ Antibiotic tolerant strains of *S. aureus* have a minimum bactericidal concentration eight to 32 times in excess of the minimum inhibitory concentration by broth tube dilution sensitivity testing. The addition of rifampin or gentamicin may be helpful in the management of patients infected with these strains. Vancomycin is the treatment of choice for strains of methicillin-resistant *S. aureus* since they are also resistant to cephalosporins. The necessity of appropriate antibiotic selection is reflected by a mortality rate of 57% for staphylococcal pneumonia when inappropriate antibiotic therapy was employed.² For uncomplicated cases of *S. aureus* pneumonia, antibiotic therapy should generally be continued for two weeks after the patient has improved and become afebrile, and for a total minimum course of three to four weeks. Pleural thickening on chest x-ray may persist for several months. This should not be considered an indication for continuation of antimicrobial therapy or for surgical intervention.

Acknowledgement

We wish to express our appreciation to Drs. Larry Scott, Russell Goodwin and Katie Bright of Danville, Kentucky for referring the patient to us.

References 1. Hieber JP, Nelson JD, McCracken GH: Acute disseminated staphylococcal disease in childhood. *Am J Dis Child* 131:181-5, 1977. 2. Chartrand SA, McCracken GH: Staphylococcal pneumonia in infants and children. *Ped Inf Dis* 1:19-23, 1982. 3. Stratton JR, Werner JA, Pearlman AS, et al: Bacteremia and the heart: Serial echocardiographic findings in 80 patients with documented or suspected bacteremia. *Am J Med* 73:851-8, 1982. 4. Huxtable KA, Tucker AS, Wedgewood RJ: Staphylococcal pneumonia in childhood. Long term follow-up. *Am J Dis Child* 108:262-9, 1964. 5. Boisset GF: Subpleural emphysema complicating staphylococcal and other pneumonias. *J Pediatr* 81:259-66, 1972. 6. Groff DB, Randolph HG, Blades B: Empyema in childhood. *JAMA* 195:572-4, 1966. 7. Cattaneo SM, Kilman JW: Surgical therapy of empyema in children. *Arch Surg* 106:564-7, 1973. 8. Ceruti E, Contreras J, Neira M: Staphylococcal pneumonia in childhood. *Am J Dis Child* 122:386-92, 1971. 9. Thompson RL: Staphylococcal infective endocarditis. *Mayo Clin Proc* 57:106-14, 1982.

From the Department of Pediatrics, University of Kentucky Medical Center, Lexington, Kentucky

We've got you covered.

No matter where you travel in the U.S., when you carry the Blue Cross and Blue Shield membership card, you carry assurance and peace of mind. Assurance that your card will be accepted from Maine to New Mexico, from Miami to

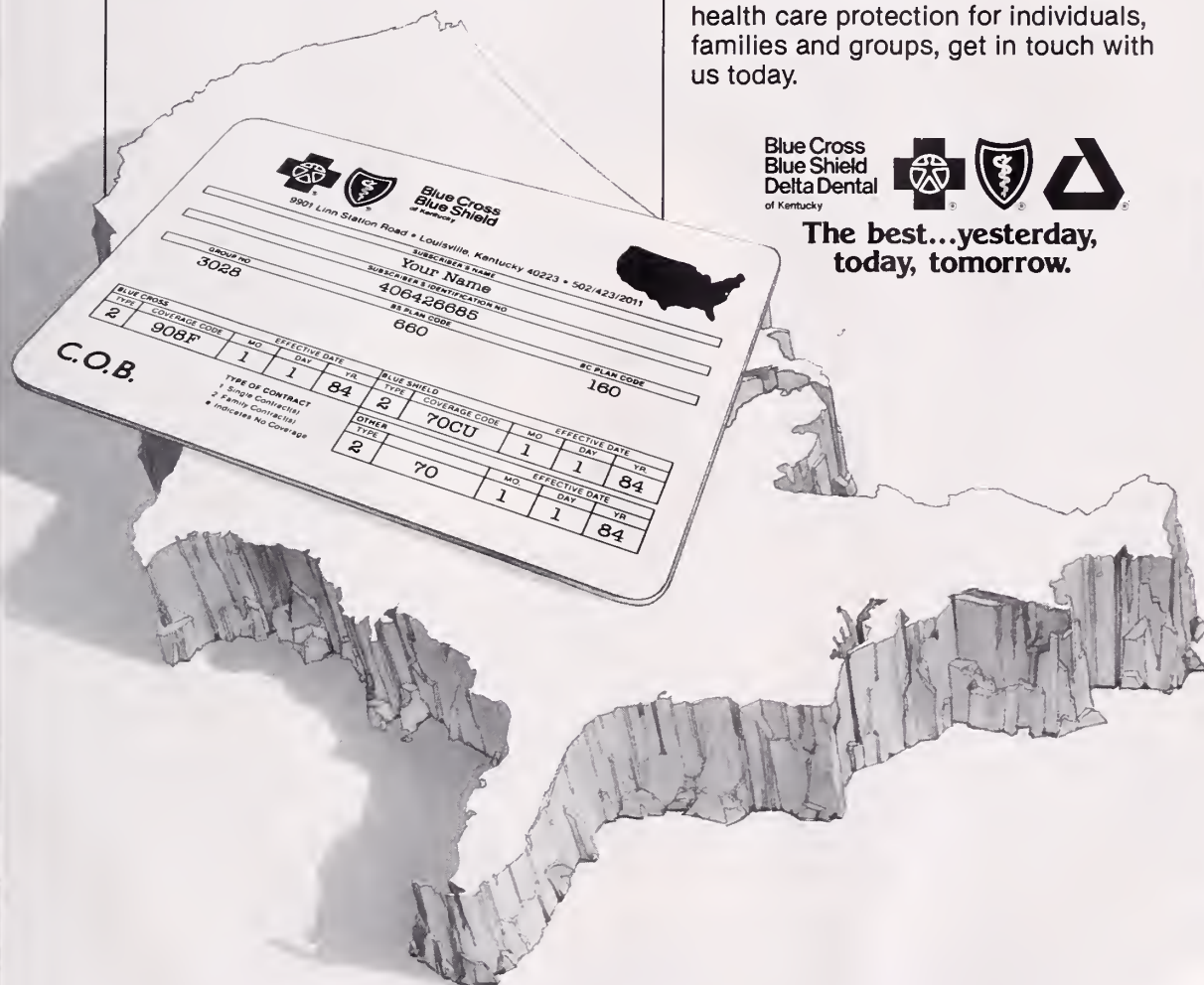
Seattle. Peace of mind that you're covered by the leader in health care protection. Can you afford to carry anything less than the best? Blue Cross and Blue Shield of Kentucky ... with you wherever you travel.

For more details about the leader in health care protection for individuals, families and groups, get in touch with us today.

Blue Cross
Blue Shield
Delta Dental
of Kentucky



**The best...yesterday,
today, tomorrow.**



* Reg. Marks Blue Cross and Blue Shield Assn.

* Reg. Mark Delta Dental Plans Assn.

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



Motrin[®]

ibuprofen, Upjohn

600 mg Tablets



More convenient for your patients.

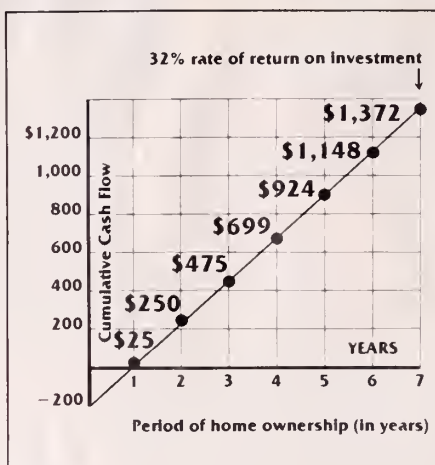
Upjohn

WHAT CAN GIVE YOU A BETTER RETURN THAN A C.D., MONEY MARKET OR SAVINGS ACCOUNT?

Believe it or not, it's your own home. Investing in energy-saving improvements in your home can help you save money *and* make money. It's one of the best investment choices you can make—even better than a C.D., money market or savings account.

How is energy efficiency profitable?

Owning an energy efficient house can make you money. Conservation features can more than pay for themselves through reduced energy costs, giving you a handsome rate of return on your initial investment. And the money you save on energy is *tax-free*. The same holds true when you buy an energy efficient house. The graph (right) illustrates the potential return on investing an additional \$200 down payment in a house with \$1,000 worth of energy-saving features.



For more details on these and other conservation investment tips, write the Alliance to Save Energy. Return the coupon below and you'll receive *Your Home Energy Portfolio*, a comprehensive guide to conservation investment opportunities in your own home. If you're looking for a great investment, there's no place like home.

Please send my free copy of *Your Home Energy Portfolio*.

Name _____

Address _____

City _____ State _____ Zip _____

Mail to: Alliance to Save Energy, P.O. Box
57200, Washington, DC 20037



ALLIANCE TO SAVE ENERGY



A public service message from this magazine and the Advertising Council.

Also sponsored by: Federal Home Loan Mortgage Corporation, Federal National Mortgage Association, National Institute of Building Sciences, U.S. Department of Energy.

To Be Or Not To Be

I have just read the literature explaining the Independent Practice Association of the local medical society. One of the hospitals in which I practice encourages me to join their Preferred Physicians Organization. And today, a patient told me she could only go to certain hospitals for an outpatient x-ray study; otherwise her insurance would not pay.

These efforts by hospitals and by physician groups to compete for the health care dollar leave me confused and alienated. My one skill is the practice of medicine. This is defined as a patient encounter, always a one to one relationship. It includes the recommendation of steps in the evaluation and care of that patient and his problem. Insofar as I control those decision-steps, the better it will be for the patient—assuming I am a competent physician and a sincere advocate for the patient with his interest only at heart.

Insofar as these decision-steps are monitored, controlled and ultimately altered by any intruder, be it peer group, hospital, insurance company or conglomerate, the patient suffers.

The practice of good medicine is the practice of fiscally sound medicine. The action of the physician in his patients' best interest is in the direction of cost containment, not excessive spending.

I am dubious that our efforts to organize ourselves or our hospitals will result in better patient care or cost containment or more fiscally responsible care. As we consider these issues let us not forget that as providers of health care our first responsibility is to the patient and his needs.

This done well, the rest will follow.

Paul C. Grider, Jr., M.D.

The Community Health Building

In 1977, The Medical Foundation of Jefferson County Medical Society bought for \$1,100,000 the Old Medical School Building at First and Chestnut streets with the objective of preserving the magnificent stone structure and converting it into an enduring health center for the city. Local physicians and other medical school alumni contributed \$560,000, J. Graham Brown Foundation \$300,000, Bingham Foundation \$25,000 and the balance from the Kentucky Heritage Commission and interested individuals. Doctor Richard S. Wolf, president of this foundation has been tireless in his constant support and supervision of the necessary details of the project since its beginning.

The four-story brick structure which was built for teaching is in the process of conversion by Ronald McDonald Company into a motel for families visiting their patients in the nearby hospitals. They are now working on two floors and it is probable that the other two floors may also be so conditioned later and will be known as the Ronald McDonald House.

The building is now occupied by the Jefferson County Medical Society offices on the first floor along with Hospice Incorporated, National Kidney Foundation, and American Diabetes Association. The JCMS Auxillary, the Foundation Administrators office, the Museum and public meeting facilities on the second floor, Visiting Nurses Association the entire third floor. The fourth floor is under lease by Citicare for the present but is not renovated; the basement is occupied now by Citicare, has storage space and the Mechanical Equipment rooms.

It is a source of great satisfaction that these two buildings are restored to an eminently useful purpose. The entire project is now profitable and it is anticipated by the Foundation that such income should be used for scholarships or contributions to medical students in need of financial help.

Sam A. Overstreet, M.D.

**New study reveals
no interaction between**



Ativan[®] (lorazepam) and Darvon[®] (propoxyphene HCl) [Ⓢ]

In a study evaluating the influence of propoxyphene coadministration on the pharmacokinetics of the oxidatively metabolized benzodiazepines Xanax[®] (alprazolam) [Ⓢ] and Valium[®] (diazepam) [Ⓢ], and a benzodiazepine metabolized by conjugation, Ativan[®] (lorazepam), the following results were reported:

with Xanax, propoxyphene caused a large and highly significant prolongation of half-life and impairment of total metabolic clearance.¹

in the case of Valium, propoxyphene produced a small but not statistically significant impairment of clearance.¹

propoxyphene had no apparent effect on the distribution, half-life or clearance of Ativan.¹

In this randomized crossover study, eight healthy male and female volunteers received single oral doses of alprazolam (1 mg), six received single IV doses of diazepam (10 mg), and five received single IV doses of lorazepam (2 mg), once in a drug-free control state and again during coadministration of pro-

poxyphene (65 mg q6h). Consistent with previous findings, this study evidences that Ativan does not interact with drugs that undergo oxidative metabolism.²⁻⁵ In contrast to most other benzodiazepines, Ativan does not compete for the cytochrome P-450 enzyme system.

The clinical implications of the pharmacokinetic interaction, or non-interaction, of propoxyphene with benzodiazepines are not established by this study. Even without a pharmacokinetic interaction, propoxyphene and benzodiazepines share central depressant properties and therefore should be coadministered with suitable caution. A concurrent pharmacokinetic interaction indicates a need for even further caution. Coadministration of propoxyphene and alprazolam, for example, would produce not only the expected pharmacodynamic interaction, but also whatever additional central depressant effect would be produced by the elevated steady-state plasma concentrations of alprazolam due to its impaired clearance.

Caution should also be observed when propoxyphene is prescribed for patients who use alcohol to excess.

References

1. Abernethy DR, Greenblatt DJ, Shader RI: Data on file, Wyeth Laboratories.
2. Patwardhan RV, Yarbrough GW, Desmond PV, et al: Gastroenterology 79:912-916, 1980.
3. Abernethy DR, Greenblatt DJ, Divoll M, et al: Psychopharmacology 80:275-278, 1983.
4. Abernethy DR, Greenblatt DJ, Divoll M, et al: N Engl J Med 306:791-792, 1982.
5. Ochs HR, Greenblatt DJ, Abernethy DR: Data on file, Wyeth Laboratories.

Ativan[®] for (lorazepam) [Ⓢ] Anxiety

Wyeth Laboratories
Philadelphia, PA 19101





Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any anti-anxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan®
for (lorazepam)
Anxiety

DOSAGE: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

HOW SUPPLIED: 0.5, 1.0 and 2.0mg tablets.

Wyeth Laboratories
Philadelphia, PA 19101



Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its *Manual on Alcoholism* points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

HEALTH PROFESSIONALS!

The Army Medical Department represents the largest comprehensive system of health care in the United States and offers unique advantages to the student, resident, and practitioner in the following professions:

- Neurosurgery
- General Surgery
- Orthopedic Surgery
- Obstetrics & Gynecology
- Otolaryngology
- Anesthesiology
- Psychiatry
- Child Psychiatry
- Family Practice
- Emergency Medicine
- General Medicine
- Pediatrics

As an Army Officer, you will receive substantial compensation, an annual paid vacation, and participate in a remarkable non-contributory retirement plan.

For more information just fill out the attached form and mail. Or call: (614) 238-2305/3507. (Collect calls accepted.)



Medical School Scholarships are Available

PLEASE SEND MORE INFORMATION ABOUT OPPORTUNITIES
IN THE ARMY MEDICAL DEPARTMENT
MAIL OR CALL:

ARMY MEDICAL DEPT. 530 JACK GIBBS BLVD, BLDG #84
COLUMBUS, OH 43215 (614) 238-2305/3507

NAME _____ AGE _____

ADDRESS _____

ZIP _____ PHONE (AC) _____

SCHOOL ATTENDED/ATTENDING _____

GRADUATION DATE _____ DEGREE _____

SPECIALTY AREA OF INTEREST _____

Fractures of the Pelvis

New Methods of Diagnosis and Treatment

MARY L. HARTY, M.D. AND DAVID SELIGSON, M.D.

Precise diagnosis of pelvic fracture is required for accurate treatment. Once radiographs of the pelvis identify the basic fracture pattern and the patient is stabilized, special radiographic views and computerized tomography assist in diagnosis. In treatment, attention is directed to anatomic restoration of the acetabulum and reconstruction of the pelvic ring.

Historians need have no fear that as the 21st century approaches, the past may be forgotten. It seems that there is not an article in the literature describing pelvic fractures that does not refer to the French surgeon, Malgaigne, who described a double vertical pelvic fractures in 1855.¹ This article is no exception. The present state of the art in diagnosis and treatment of pelvic fractures using computed tomography (CT) in conjunction with plain radiographic findings is discussed. The life-threatening soft-tissue injuries accompanying multiple pelvic fractures continue to present formidable clinical, diagnostic and therapeutic challenges superceding in immediate care and the treatment of the associated fractures, which may have rendered the pelvis unstable and unable to bear weight.^{2,3,4} The future will tell whether nuclear magnetic resonance scanners will supplant CT in the diagnosis of pelvic fractures and whether present methods of treatment will become archaic.

Anatomy

The pelvis is a ring structure composed of the innominate bones and sacrum. The innominate bones consist of the ilium, ischium and pubis. In the second decade of life, these bones fuse at the triradiate cartilage forming the acetabulum. The strong interpubic ligaments anteriorly and the sacroiliac ligaments posteriorly hold the pelvis in a state of prestress; if the ligaments

are cut, the pelvis immediately opens. The pelvis transmits the weight of the axial skeleton to the femurs. The main weight-bearing forces pass from the sacrum to the ilium via the sacroiliac joints.

Judet and Letournel⁵ introduced the idea of considering the acetabulum, not merely as a socket for the femoral head but as a structure supported and surrounded by thick columns of bone, anteriorly by the iliopubic column and posteriorly by the ilioischial column. These anterior and posterior columns form an inverted V with the acetabulum located in the angle. This concept is readily apparent when one looks at a pelvis from the lateral view. The idea has practical applications. It is to these bone masses that internal fixation devices are attached during repair of acetabular fractures.

Diagnosis

Even in hospitals where CT scanning is available, conventional radiographs are the initial diagnostic method of choice in establishing whether the patient has suffered a minor pelvic fracture or major disruption. The anteroposterior view of the pelvis answers this question. In addition to the presence of fractures, this view should be observed for widening at the sacroiliac joints and pubic symphysis. Normally, the distance between the pubic bones should not exceed 8 mm in adults (except during pregnancy) or 10 mm in children.⁶ The superior margin of the pubic bones may normally be aligned on slightly different planes. The inferior borders have been found to be in the same plane in 99.5% of normal males and 95% of normal females.⁷ Therefore, in cases where there is asymmetry of the inferior pubic borders, the sacrum and sacroiliac joints should be carefully examined for associated fractures or dislocations.

General radiologic principles dictate that radiographs should always consist of at least two views, usually at right angles to each other. In the pelvis, the

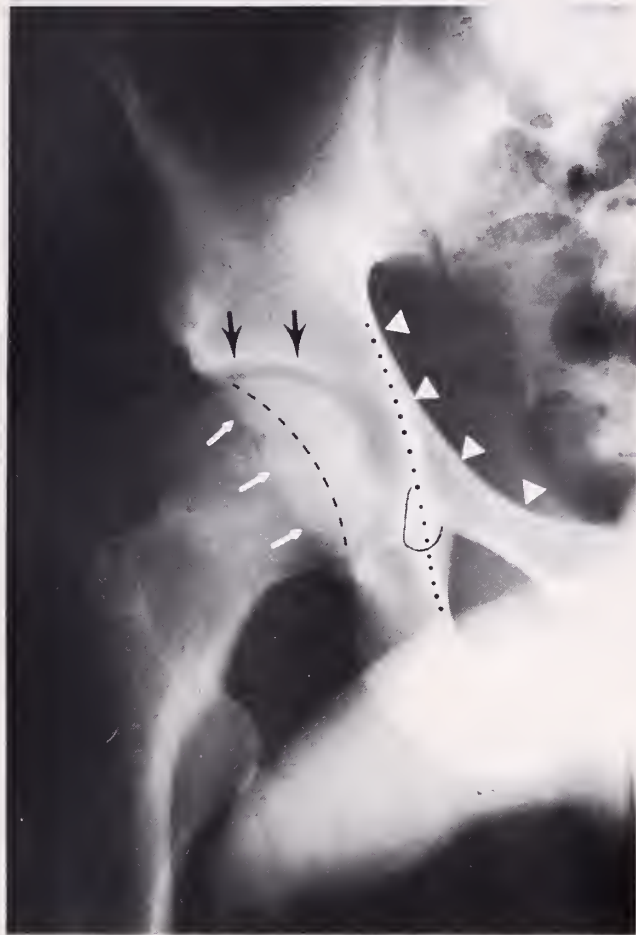


Fig. 1: Normal radiographic anatomy of the acetabulum. Six lines are identifiable in the AP projection. (1) White arrowheads identify the iliopectic line (anterior column). (2) Dotted line identifies the ilioischial line (posterior column). (3) U-shaped line outlines the "teardrop" or roentgen U; this is formed laterally by the medial wall of acetabulum and medially by the anterior portion of the quadrilateral plate. (4) Black arrows mark the acetabular roof. (5) Dashed line identifies the anterior lip of the acetabulum. (6) White arrows mark the posterior lip of the acetabulum.

lateral view is rarely used. Instead, once the problem is identified as either a pelvic ring or an acetabular fracture, special views are taken. For pelvic ring injury, the inlet and outlet (Pennal) views are obtained with the patient supine and the x-ray tube angled approximately 30° caudad and cephalad, respectively. Rotational deformity and displacement of the pelvis are well demonstrated on these views.⁸

For acetabular fracture, the important bony landmarks of the hip are demonstrated on the AP view (Fig. 1). For more detail in planning surgery, the (Judet) anterior and posterior oblique views of the hip (30°-45°) are taken.⁵ The anterior oblique view demonstrates the

posterior acetabular margin and the anterior iliopectic column best. The posterior oblique view demonstrates the anterior acetabular margin and the ilioischial column best. Seen on these views, the pathway of the fracture lines through the acetabulum helps to better define the full extent of the fracture.

The use of CT in diagnosing pelvic and acetabular fractures is now quite common.⁹⁻¹³ CT scanning of the pelvis is easily performed with the patient supine. If dislocation of the femoral head is present, it should be reduced before scanning. The axial plane of CT is the most suitable for demonstration of pelvic fractures. Coronal and sagittal reconstructed images can be obtained with newer CT equipment. Contiguous scans of 1 cm thickness are obtained from the iliac level to the ischium. Sections 5 mm in thickness are obtained through the acetabulum where better bone detail is needed (Fig. 2). For scans performed only to diagnose bone abnormalities, it is not necessary to give oral or intravenous contrast material. Scanning time is less than 30 minutes.

CT scans are analyzed for the presence and location of fractures, the relative position of the fracture fragments, identification if possible of the stable fragment, presence or absence of intra-articular bone fragments, integrity of the femoral head and presence and nature of accompanying soft-tissue injuries.

Classification

Pelvic fractures are usefully divided into four major groups (Table 1). Pelvic ring injuries can be further subdivided according to mechanism of injury into anteroposterior compression, lateral compression and vertical shear types.⁸ "Malgaigne's fracture" can actually be either a lateral compression or a vertical shear injury.^{1,14} The acetabular fractures are regionally divided into anterior and posterior lip fractures, anterior and posterior column fractures and transverse types.⁵ Complex pelvic injury patterns, particularly vertical shear fractures and fractures breaking both the pelvic ring and acetabulum, are often associated with life-threatening bleeding and should be urgently treated according to the principles outlined by Richardson *et al.*² Here, angiography and embolization may be therapeutically useful to control bleeding.

Treatment

Most pelvic fractures consist of stable pubic rami fractures, avulsion of an ischial tuberosity or anterior iliac spines. These generally resolve with nonoperative

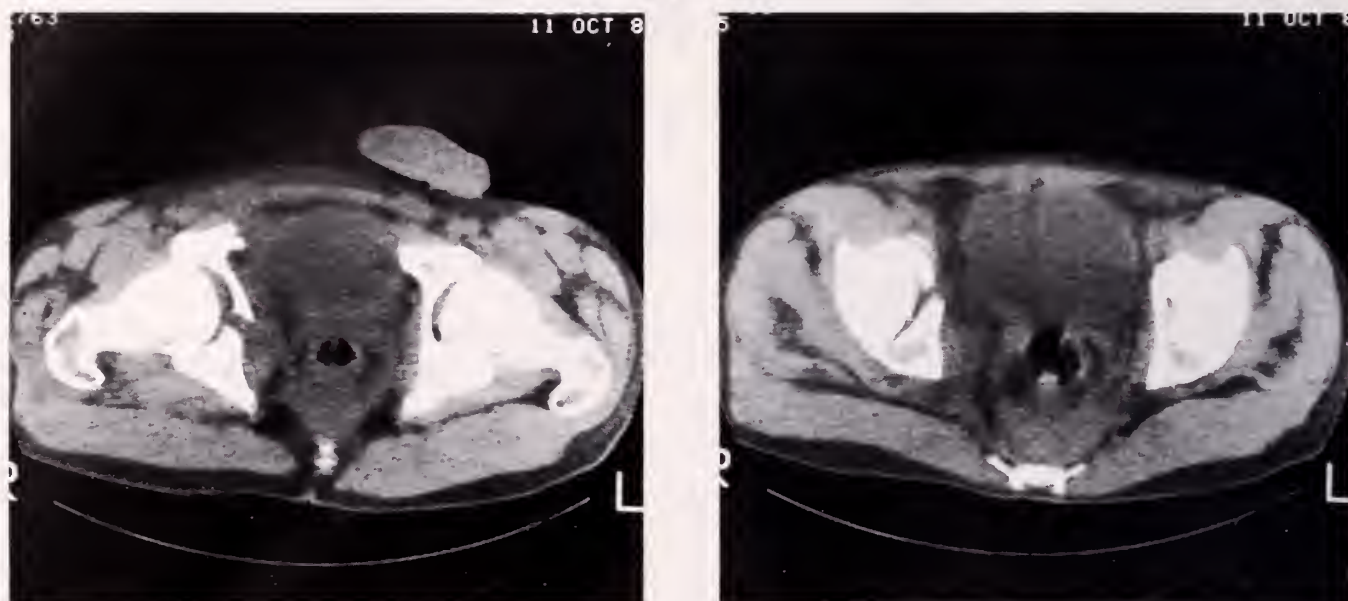


Fig. 2: (A)CT scan at the level of the acetabular fossa shows a fracture of the medial wall of the right acetabulum. (B)In the same case, CT scan at the level of the roof of the acetabulum in the same case shows a comminuted fracture of the right acetabular roof.

methods of treatment, *ie*, relief of pain, bed rest with progress to full ambulation about two weeks postinjury.

In the early stages, stabilization of the fractures involving the pelvic ring may be important to help prevent further blood loss into the pelvis. Understanding the mechanism of injury helps to define the fracture so that appropriate counter forces may be applied to maintain stable reduction. In the anteroposterior compression in-

jury, the pelvis must be closed. In the past, this closure has been achieved by application of pelvic slings, hip spica casts, and bed rest in the lateral recumbent position. However, external skeletal fixation can stabilize the pelvis and still allow early mobilization, preventing the respiratory complications associated with prolonged bed rest and facilitating nursing care. The external fixation frame is anchored to the pelvis on both sides

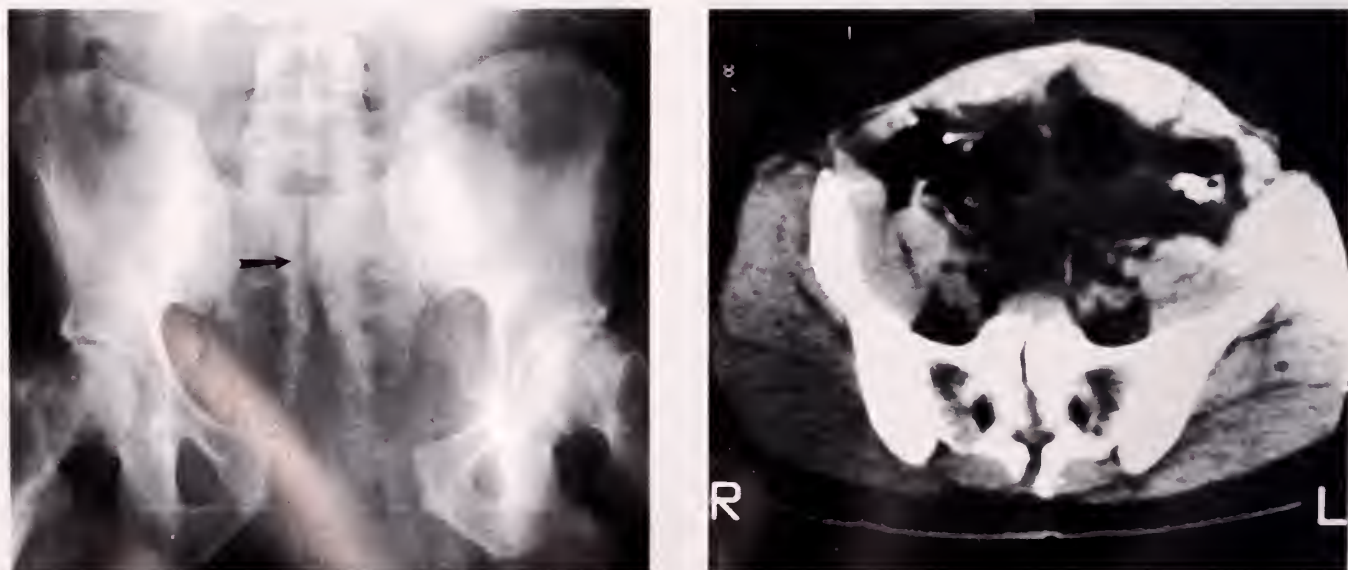


Fig. 3: (A) AP radiograph of the pelvis showing an unusual antero-compression type injury with marked diastasis of the pubic symphysis associated with midline vertical sacral fracture. (B)CT of the pelvis at the level of the upper sacrum shows the midline vertical sacral fracture. (C)Combining internal fixation of the sacral component with external fixation of the pubic diastasis gave the patient a good result.

FRACTURES of the PELVIS—Harty and Seligson

through pins inserted into the iliac crests. The rods of the frame are approximated to reduce diastasis of the pelvis. The rods can also be used as lever arms to reduce rotational deformity. This reducing force may be exerted anteriorly in the pelvis or posteriorly through the sacroiliac joints as in the Slatis frame. After the frame is installed, patients may turn in bed and may transfer independently from bed to a chair if their general condition permits and if good leg control is present. Rehabilitation of the patient gradually progresses from touch weight-bearing on the injured side to full weight-bearing. External pelvic frames are surprisingly well-tolerated by patients; this is attributed to the relief of pain that accompanies the stabilization of the pelvis when the fixation device is applied. Patients are taught a program of self-care for the fixation pins to prevent infection. The fixateur is removed eight to 12 weeks postinjury.¹⁴⁻¹⁶

As the hip is a major weight-bearing joint, accurate reduction of fractures in this area is desirable and is the goal in treatment if good long-term function of the hip is to be maintained.^{5,16,17} Small fractures of the acetabular margins or nondisplaced fractures are treated by closed reduction. If traction applied early to a displaced acetabulum fails to reduce the fracture, operative reduction and internal fixation are recommended because allowing the hip to heal in a displaced position will give a poor clinical result. The important role of the weight-bearing acetabular dome in the prognosis of injuries through this region is emphasized in orthopedic

literature,¹⁷ and CT scans demonstrate this area well. The appropriate surgical incision and procedure are chosen following analysis of the radiographs and CT scans. Curved plates molded around the acetabulum and anchored to it by screws are the devices commonly used.^{5,16} A long period of physical therapy and protection from weight-bearing activities are necessary postoperatively. Patients seldom return to full activity before six months after surgery.

Discussion

It is generally accepted that because the pelvis is a ring structure, a fracture of one portion is associated with another fracture or dislocation elsewhere in the pelvis. The presence of occult injury to the posterior aspect of the pelvis and acetabulum has been confirmed in the past by bone scans^{18,19} and more recently with CT scans^{9,10} when only an injury to the anterior aspect of the pelvis was demonstrated on the AP radiograph. Computerized tomography demonstrates fractures with ease and minimal discomfort to the patient. This feature is important for patients in whom severe pain or their general condition prevents obtaining oblique views. The many articles in the literature concerning the role of CT scans in the diagnosis of pelvic and acetabular fractures stress its usefulness in influencing the treatment of these injuries by diagnosing otherwise unsuspected associated fractures, dislocations or intra-articular bone fragments.¹⁰⁻¹³ CT scans consistently confirm the diagnosis of fractures demonstrated on prior radiographs. Comparison studies of CT scans with conventional radiographs in both the diagnosis of pelvic and acetabular fractures have been published.^{10,20} Dunn *et al*⁹ compared the usefulness of the CT exam to the AP pelvic radiograph and found that in 65% of cases, CT added



Table 1. Classification of Pelvic Fractures

I	Pelvic Fracture without involvement of the pelvic ring or acetabulum
	Iliac wing fracture
	Pubic or ischial ramus fracture
	Iliac spine or tuberosity fracture
	Sacral fracture
II	Pelvic ring fracture
	Type I anteroposterior compression
	Type II lateral compression
	Type III vertical shear
III	Acetabulum fractures
	Anterior or posterior lip
	Anterior or posterior column
	Transverse and T-types
IV	Complex pelvic fractures with involvement of the pelvic ring and acetabulum

FRACTURES of the PELVIS—Harty and Seligson

significant information not diagnosed on the conventional radiograph. These unsuspected injuries were sacral fractures and sacroiliac joint injuries. Other authors confirm this finding.¹⁰ Reports are uniformly enthusiastic about the added information CT offers in the diagnosis of acetabular fractures. The precise patterns as well as the extent of comminution, displacement or rotation of fracture fragments are easily demonstrated by CT. This visualization allows for a more informed choice of surgical versus non-surgical treatment and of surgical approach, if indicated. The presence of intra-articular bone fragments in the hip, which need surgical removal, has been consistently reported by several authors when these have not been diagnosed by conventional hip views, which included oblique projections.^{10,11} The size of the pelvic hematoma accompanying pelvic injuries is easily seen.

Despite the cost of the CT scan and the radiation exposure with unavoidable gonadal radiation in the female patient, the use of CT scans in the diagnosis of pelvic and acetabular fractures will most likely increase because of the ease and clarity with which it gives additional information.

Evolving concepts in treatment of pelvic fractures following urgent control of bleeding and avoidance of infectious complications include precise radiographic delineation of component fractures using plain radiographs and CT, anatomic restoration of the acetabulum and combined internal and external fixation of unstable pelvic ring injuries (Fig. 3). With this approach, the majority of patients can be expected to have full function following these devastating injuries.

- References**
1. Malgaigne JF: A Treatise on Fractures. Transl. by J. H. Packard, Philadelphia, J. B. Lippincott Co., 1859.
 2. Richardson JD, Harty J, Amin M, Flint LM: Open pelvic fractures. *J Trauma* 22:533-538, 1982.
 3. Peltier IF: Complications associated with fractures of the pelvis. *J Bone Joint Surg* 47A:1060-1069, 1965.
 4. Trunkey DD, Chapman MW, L in R: Management of pelvic fractures in blunt trauma. *J Trauma* 14:912-923, 1974.
 5. Judet R, Letournel E: Fractures of the acetabulum: Classification and surgical approaches for open reduction. *J Bone Joint Surg* 46A:1615-1646, 1964.
 6. Muecke EC, Currarino G: Congenital widening of the pubic symphysis: Associated clinical disorders and roentgen findings. *Am J Roentgenol* 103:179-185, 1968.
 7. Vix V, Chi YR: The symphysis pubis. *Am J Roentgenol* 112:517-525, 1971.
 8. Pennal GF, Tile M, Waddell J, Garside H: Pelvic disruption: Assessment and classification. *Clin Orthop* 151:13-21, 1980.
 9. Dunn L, Berry P, Connally J: Computed tomography of the pelvis in patients with multiple injuries. *J Trauma* 23:378-383, 1983.
 10. Rafii, M, Firooznia H, Golimbu C, Waught T, Naidich D: The impact of CT in clinical management of pelvic and acetabular fractures. *Clin Orthop* 178:228-235, 1983.
 11. Rubenstein J, Kellam J, McGonigal D: Acetabular fractures assessment with computerized tomography. *J Can Assoc Radiol* 34:19-22, 1983.
 12. Walker RH, Burton D: Computerized tomography in assessment of acetabular fractures. *J Trauma* 22:227-234, 1982.
 13. Vas WG, Wolverson M, Sundaram M, Heiberg E, Pilla T, Shields SJ: The role of computerized tomography in pelvic fractures. *J Comput Assist Tomogr* 6:796-801, 1982.
 14. Seligson D: External fixation of pelvic fractures. In Seligson D, Pope M (eds): Concepts in External Fixation. New York, Grune & Stratton, 1982, pp 183-201.
 15. Mears DC: Clinical techniques in the pelvis. In Mears DC (ed.): External Skeletal Fixation. Baltimore, Williams & Wilkins, 1983, pp 339-457.
 16. Tile M: Fractures of the pelvis and acetabulum. Baltimore, Williams & Wilkins, 1984.
 17. Pennal G, Davidson J, Garside H, Plewes J: Results of treatment of acetabular fracture. *Clin Orthop* 151:115-123, 1980.
 18. Gertzbein SD, Chenoweth DR: Occult injuries of the pelvic ring. *Clin Orthop* 128:202-207, 1977.
 19. Nutton RW, Pinder I, Williams D: Detection of sacroiliac injury by bone scanning in fractures of the pelvis and its clinical significance. *Injury* 13:473-477, 1982.
 20. Mack LA, Harley JD, Winquist RA: CT of acetabular fractures: Analysis of fracture patterns. *Am J Roentgenol* 138:407-412, 1982.

From the Departments of Radiology and Surgery, University of Louisville School of Medicine, and Department of Radiology, Veterans Administration Medical Center, Louisville, Kentucky. Reprint requests to David Seligson, M.D., Division of Orthopedics, Department of Surgery, University of Louisville School of Medicine, Ambulatory Care Building, Louisville, KY 40292

*Does your office
need a "physical"?*

KMCO can diagnose
your office needs
and prescribe the
proper remedy.



A subsidiary of KMA Physicians Services, Inc.

**KENTUCKY MEDICAL MANAGEMENT &
COMPUTER OPERATIONS**

recommended by Kentucky physicians as the
treatment of choice for reliable and economical
advice and support in all phases of office
management.

Our package of services includes consultation and
evaluation of office automation needs, and if a com-
puter is recommended, we have the staff expertise to
not only make sure the right computer is installed,
but will be there to insure its efficient operation. Your
computer package will be specially designed to
accomplish what you need—now, next month and
next year.

Visit us during the KMA Annual Meeting in Booth #14



Contact:

Marty Paslick or Joe Witherington
3532 Ephraim McDowell Drive, Louisville, KY 40205
Toll Free 1-800-292-1675 or in Louisville 451-2095

A special practice for specialists

If you're a surgeon or OB/GYN or other medical specialist, the Air Force may have a special practice for you.

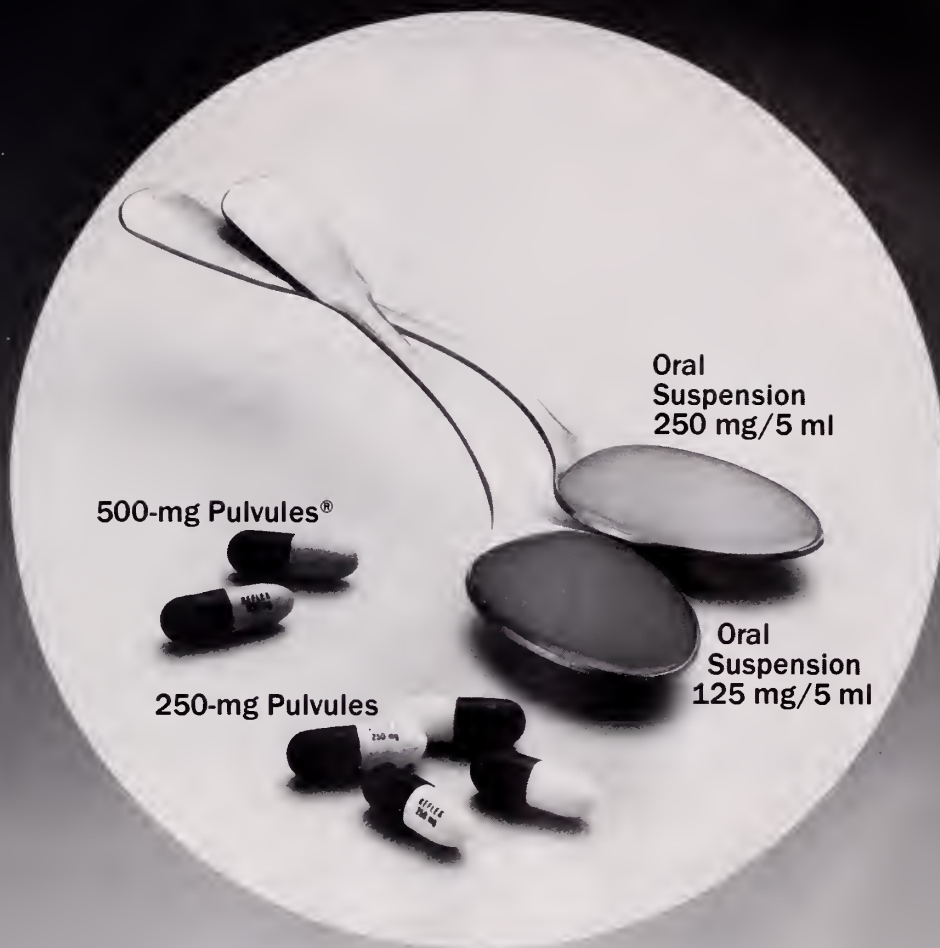
What makes it special? You'll enjoy an excellent pay and benefits package. Your regular working hours will allow you to spend more time with your family. You'll receive 30 days of vacation with pay each year. And you will work with modern equipment and some of the most highly trained professionals in the world, serving your country and your patients. Now that's special!

**Find out just how special
your practice can be.**

Contact:

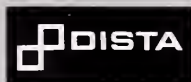
TSGT PETE HONAKER
701 W. Muhammed Ali Blvd.
Louisville, KY 40203
Call 502-582-5727 Collect

Easy To Take



Keflex[®]
cephalexin

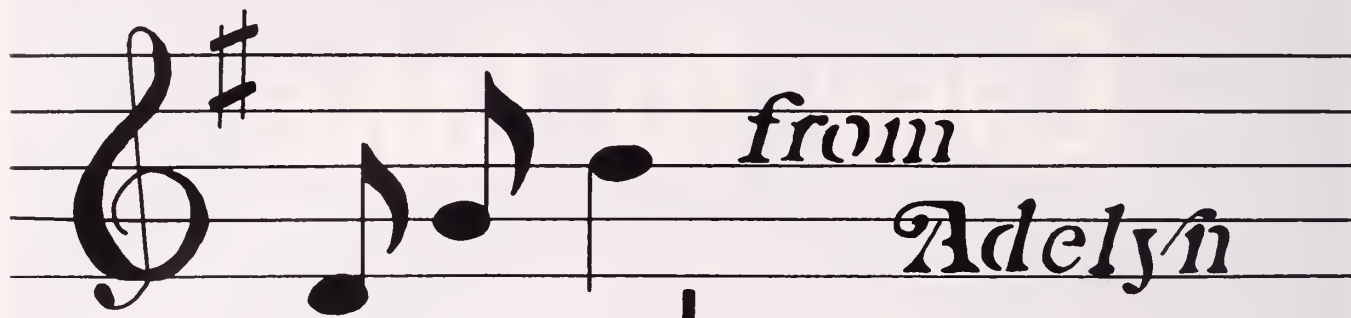
Additional information
available to the profession
on request.



420113

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Auxiliary



AMAA CONVENTION

DELEGATES: Mrs. William Spalding; Mrs. Charles Veurink; Mrs. Arthur Daus; Mrs. J. Roger Potter; Mrs. Larry Franks

ALTERNATES: Mrs. John Cronin; Mrs. Uday Dave; Mrs. James Davis

Each of these people attended two of the four mini-briefing sessions on legislation, membership, health projects and AMAERF. Four attended the Reference Committee Hearing on Organizational Affairs and four the Hearing on Health Issues. All were present during the business sessions of the House of Delegates. Reports are in the September issue of Bluegrass News.

NATIONAL AWARDS WON BY KENTUCKY

BOYD COUNTY: AMAERF FIRST PLACE for the county with the largest per capita contribution (over \$150 per member)!

BLUEGRASS NEWS: Special recognition!

MEMBERSHIP: Contest between Oklahoma and Kentucky for greatest percentage of increase in full dues paying AMAA members won by Kentucky!

AKMA profusely thanks you, KMA, for your generosity in supplying our delegates with the distinctive horse stickers AND for your kind gift of the beautiful red roses albeit for blue ladies.

"ALL SHOOK UP?"
SINGING "BLUES IN THE NIGHT?"
THEN

"I'VE GOT TO GET A MESSAGE TO YOU"

Only 40% of the doctors in this country are registered to vote! Therefore, the AMA and the AMAA are promoting a national physician family voter registration drive called "PROJECT MEDVOTE." "What a Difference a Day Makes" "If" all physicians and their families VOTE in November. "More Today than Yesterday" "No Man is an Island." "Together" "We Shall Overcome" but "It All Depends on You." Don't "Put Your Dreams Away." "Pick Yourself Up" and "Fight, Fight, Fight." REGISTER NOW TO VOTE!

HARMONY'S (AKMA's) FALL BOARD AGENDA

MONDAY, SEPTEMBER 17

10:00-4:00
10:00-5:00
10:30-5:00
6:00

"I Was There"
"Walk Right In"
Rap Sessions
KEMPAC

HYATT REGENCY, LEXINGTON

Registration, Lobby
Hospitality Room
Committee Meetings
Reception and Dinner

Auxiliary

TUESDAY, SEPTEMBER 18

8:00-11:00	"One More Time"	Registration
8:00-11:00	"Happy Talk"	Hospitality Room
8:30-11:00	Staff "In Toto"	Board Meeting
	featuring guest soloists	(All Members Invited)
	Dr. Charles Smith on "This Will Be"	
	William Doll on "This Land is Your Land"	
11:30-12:00	"Tiny Bubbles"	Cash Bar
12:00-1:30	"Food, Glorious Food"	Luncheon
	Listen to the discourse of the	(Everyone Invited)
	DRUGSHOP QUARTET	
	Dr. Burns Brady	
	Dr. Gordon Hyde	
	Dr. Keene Hill	
	Mrs. Connie Hyde	
2:00-4:00	"There Are Such Things"	Ladies' Tour of the
		Headley Museum
5:30-7:00	"Hail to the Chief" and "Sweet Adeline"	Reception for the
	President, KMA, and the President, AKMA	

WEDNESDAY, SEPTEMBER 19

8:00 a.m.-	"Stay a Little Longer"	Hospitality Room
10:00 p.m.		

DOCTORS YOU ARE INVITED

Do join the AKMA Harmonizers and guests for lunch on Tuesday at 12:00. We have planned this at a time conducive to your schedule so you may hear the Drugshop Quartet. Your check for \$12.00 will be your reservation.

YOU ARE ALSO INVITED
FOR WINE, CHEESE, AND A TOUR
of
McDOWELL HOUSE
ON SUNDAY EVENING FROM 6:00-9:00
AKMA sincerely hopes you will be able to take this opportunity to visit
YOUR HOUSE

McDOWELL HOUSE TOUR

_____ will attend
LUNCHEON (please enclose check for \$12.00 each luncheon)

_____ will attend
Mail before Sept. 11 to: Mrs. Daniel Kenady, Sr.
2192 Lakeside Drive
Lexington, Kentucky 40502

PRACTICE MADE PERFECT



**The C/T/S Medical Management System
is a proven, easy-to-use, fully-supported way to a
healthier bottom line for you and your patients.**

C/T/S is a company dedicated to improving the efficiency and profitability of medical practices through state-of-the-art computerization. Medical management systems are C/T/S's only business.

PROVEN PERFORMANCE.

The C/T/S Medical Management System was developed by a doctor... with an understanding of the unique problems of medical practice that only a doctor could have.

For over six years, C/T/S systems have been in use by practicing physicians, performing myriad tasks that have enabled them to reduce overtime and paperwork costs and increase productivity.

SPECIALIZED.

The C/T/S Medical Management System is configured individually for each practice, hospital department or HMO... and can accommodate single or multiple practices and/or multiple office networks. Systems are available to accommodate all sizes and specialties, with needs from one to 39 terminals, 42 printers, and 512 megabytes of disk storage.

Every capability is built right into the C/T/S system: insurance claims processing and monitoring (paperless claims), appointments, surgery schedules, medical records, data-base access, billing, receivables management, mailings/recalls, general ledger, payroll, front desk management and more.

C/T/S provides a complete, turn-key system... with expansion capability to handle all of your future growth.

EASY-TO-USE.

The C/T/S system is designed to go right to work as soon as it's installed. Our comprehensive on-site training program makes your staff feel right at home... and on-screen "Help" menus are always available.

FULLY-SUPPORTED.

The C/T/S system uses Wang hardware, with service provided by Wang's nationwide service network. All software is serviced directly by C/T/S. **WANG**

The C/T/S staff of specialized program developers is always enhancing and refining our software product... annual updates are provided to our clients at no additional charge. C/T/S also provides custom programming for those few, one-of-a-kind requirements that are not already met by the system.

CALL 1-800-638-2667

for more information and to arrange a no-charge feasibility analysis. In Maryland call (301) 532-2870.

C/T/S Computer Terminal Services, Inc.

THE SYSTEM IS THE SOLUTION.

National Sales Office:
Village of Cross Keys • Suite 212
Baltimore, Maryland 21210

Regional Office:
10475 Montgomery Road
Cincinnati, Ohio 45242

Current Medical Diagnosis and Treatment 1984

Marcus A. Krupp and Milton J. Chatton

Lange Medical Publications

Annually an edition, now the twenty second, is published of this medical bible. Packed into 150 pages — some might say crowded — are the closest thing to “current medical education.” The senior editors, emeriti, bring the seasoning of their editing years and the training of their heirs to the task. Many sections have been rejuvenated with references from the literature and “how-tos” from the wards and offices. Multiauthorship is obviously essential to such sophistication, but the weaving of these parts to fit is to the credit of the senior editors.

Including the specialists as authors of such chapters as ophthalmology, OB-Gyn, Urology, etc makes these chapters a microcosm of fields distant from the usual medical spectrum.

I enjoyed the chapters beginning the book which gently

discussed symptom observation, human physiology and the differences aging makes in medicine. Lessons to learn abound here leaving specific disease management and diagnosis for later.

The specifics of pharmacotherapeutics are not avoided. Many readers yearn for guidance, especially those with less sophisticated backgrounds.

Very few tables and no illustrations make the pages monotonous but definitely efficient.

An appendix is packed with useful material normal laboratory values, CPR, Heimlich maneuvers, controlled drugs, mortality tables and height-weight tables.

Complete, well written reasonable — this book is an easy purchase.

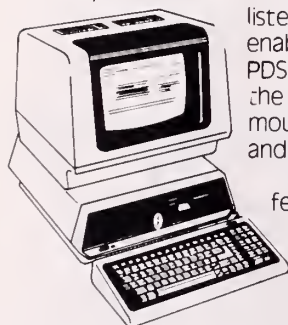
Stephen Z. Smith, M.D.

WE'RE LISTENING



Combus is concerned about efficient office management.

PDS, the best medical office management system available today! How can we make such a statement? That's simple! We've



listened to what you had to say. Doing so has enabled The Combus Group to develop the PDS System, the one system that has bridged the gap between the physician and his mounds of daily paper work. We're listening, and there isn't a better way to learn.

Take a look at just a few of the automated features found on our PDS software and we're sure you'll agree, PDS is the best office management system on the market.

- Medicaid/Medicare Forms
- Accounts Receivables
- Accounts Receivable Aging
- Third Party Billings
- Statements
- Multi-office, Multi-physician
- Patient Charting Capability
- Uses standard CPT & ICD Codes
- History Taking System
- Appointment Scheduling
- Complete practice analysis

Combus provides complete on-going support; after the sale we continue to listen!

The PDS System saves time, saves space, increases office productivity and is simple to operate. We can make your practice more efficient, productive, and profitable. Call The Combus Group today and listen.

PDS

PHYSICIAN DATA SYSTEMS

A Division of the **COMBUS GROUP** Incorporated

821 Corporate Drive ■ Suite 200 ■ Lexington, Kentucky 40503 ■ 606/223-5754

Postgraduate Page

SEPTEMBER

- 1-3 Multispecialty Ophthalmic Plastic Surgery Symposium, Second Annual Meeting, Lexington Marriott Resort Hotel, Lexington, Kentucky
- 3-7 XV International Congress of the International Academy of Pathology, Fountainebleu Hilton, Miami Beach, Florida
- 6-8 14th Annual Peripheral Vascular Disease Symposium, Saint Anthony Hospital, University Hilton Inn, Columbus, Ohio
- 10 American Society for Parenteral and Enteral Nutrition, 1984 Postgraduate Course Program "Challenges for Clinical Nutrition in the 80's," Marriott Pavillion Hotel, St. Louis, MO. Contact: Donna Baudrau, (202) 638-5881
- 17-20 KMA Annual Meeting, Hyatt Regency/Lexington Convention Center, Lexington, Kentucky
- 20 Use of Computers in the Medical Office, Quillen-Dishner College of Medicine, Johnson City, Tennessee. Contact: Sue Hutchinson, (615) 928-6426 ext. 204
- 21-23 "Requested Topics for Clinicians" Sponsored by the Medical Center of East New Orleans. Contact Dennis M. Occhipinti, M.D., 5640 Read Boulevard, Suite 400, New Orleans, Louisiana, 70127
- 24-26 National Institutes of Health Consensus Development Conference, Indications for and Risks of Treatment with Fresh Frozen Plasma. Sponsored by National Heart, Lung and Blood Institute, the Center for Drugs and Biologics of the Food and Drug Administration, and the Office of Medical Applications of Research. Contact: Peter Murphy (301) 468-6555
- 29-30 "Neurotrauma Conference" Bethesda Oak Hospital, Cincinnati, Ohio. Contact: Thomas O'Connor, (513) 569-6339

OCTOBER

- 1-3 Advanced Echocardiography, presented by American College of Cardiology, the Indiana University School of Medicine and the Krannert Institute of Cardiology, Hyatt Regency, Indianapolis, Indiana. Contact: ACC, Extramural Programs Department, 9111 Old Georgetown Road, Bethesda, Maryland 20814
- 8-12 50th Annual Scientific Assembly of the American College of Chest Physicians, Dallas, Texas. Contact: Ardath Berliant, (312) 698-2200
- 9-14 ASPRS/PSEF/ASMS 53rd Annual Scientific Meeting, Las Vegas, Nevada
- 9-12 36th Annual Convention and Scientific Assembly of the American Academy of Family Physicians, Bartle Hall Convention Center, Kansas City, Missouri. Contact: William R. DeLay, 1 (800) 821-3512
- 10-11 12th Annual Fall Pediatric Surgery/Pediatrics Symposium "Care of the Seriously Ill Child," Indianapolis Radisson Hotel, Indianapolis, Indiana
- 11-13 Advanced Nuclear Cardiology and Comparative Imaging Techniques: 1984, conducted by American College of Cardiology and the Yale University School of Medicine, Yale University School of Medicine, New Haven, Connecticut. Contact: ACC, Extramural Programs Department, 9111 Old Georgetown Road, Bethesda, Maryland 20814
- 14-19 The Ninth Annual International Body Imaging Conference Royal Lahaina Hotel, Maui, Hawaii
- 16-18 Primary Care: Selected Infectious Diseases, Kauai, Hawaii. Sponsored by Health Science Seminars and University of California, San Francisco. Contact: Cynthia Vaughn, (415) 861-2713
- 22-25 Primary Care Update: Interstate Postgraduate Medical Association, MGM Grand Hotel, Las Vegas, Nevada. Contact: (608) 257-6781
- 24-27 The American Academy of Clinical Anesthesiologists Fall Seminar, Grove Park Inn, Asheville, NC 28804. Contact: AACA, (615) 588-6279
- 25-27 The Treatment of Infections of Bones and Joints: How to Approach the Difficult Problems, West Virginia University School of Medicine, Oglebay Park, Wheeling, West Virginia. Contact: Robert E. Kristofco, Office of CME, WVU School of Medicine, P. O. Box 6302, Morgantown, WV 26506-6302

- 25-27 International Symposium on Implant Surgery for the Hand and Upper Extremity, 15th Annual Meeting, Blodgett Memorial Medical Center and Amway Grand Plaza Hotel, Grand Rapids, Michigan. Contact: American Society for Surgery of the Hand, (303) 755-4588.
- 25 Rheumatoid Arthritis, Executive West Hotel, Louisville, Kentucky. University of Louisville School of Medicine. Contact: Betty Matthews (502) 588-5329.

NOVEMBER

- 1-2 Eighteenth Annual Newborn Symposium, University of Louisville School of Medicine, HSC, Louisville, Kentucky. Contact: Betty Matthews (502) 588-5329
- 9-10 Practical Hoffmann Fixation, Marriott Inn, Clarksville, Indiana, University of Louisville School of Medicine. Contact: Betty Matthews (502) 588-5329
- 14-17 Rhinoplasty - A State of the Art Symposium, The Waldorf Astoria, New York, NY. Contact: Francine Leinhardt, Plastic Surgery Clinic, Manhattan Eye, Ear and Throat Hospital, 210 East 64th Street, New York, NY 10021
- 16 Diagnostic Ultrasound Update '84, (West Virginia University School of Medicine) Sheraton Lakeview, Morgantown, West Virginia. Contact: Robert Kristofco, Office of CME, WVU School of Medicine, P. O. Box 6302, Morgantown, WV 26506-6302
- 16 The Care and Preservation of the Diabetic Foot (West Virginia University School of Medicine) WVU Medical Center, Morgantown, West Virginia. Contact: Robert Kristofco, Office of CME, WVU School of Medicine, P. O. Box 6302, Morgantown, WV 26506-6302
- 16-18 Pulmonary Medicine and Office Spirometry for the Primary Care Physician, Vacation Village Resort, San Diego, California. Sponsored by Office of Continuing Medical Education, UC San Diego School of Medicine, (619) 452-3940
- 17-18 Fall Conference of Anorexia and Bulimia to Explore the Question, "Why Women?" The Center for the Study of Anorexia and Bulimia, New York, NY. Contact: Jerry Keucher (202) 595-3449 or Stephen Zimmer (212) 288-5472
- 20 SEVENTH ANNUAL TOPICS IN MEDICAL ONCOLOGY, Highlands Baptist Hospital, Louisville, Kentucky. "The Costs and Dilemmas of Cancer and Cancer Care" and "Systemic Coagulation Problems in Malignant Disease." Contact: Barbara Janes (502) 561-3432 or 561-3100

DECEMBER

- 3-5 National Institute of Health Consensus Development Conference: Limb-Sparing Treatment of Adult Soft-Tissue and Osteogenic Sarcomas. Contact: Peter Murphy (301) 468-6555
- 5-9 The Departments of Otolaryngology and Pediatrics, University of Pittsburgh presents The 11th Annual Symposium, EAR, NOSE AND THROAT DISEASES IN CHILDREN: A 1984 UPDATE. The Breakers, Palm Beach, Florida. Contact: Department of Otolaryngology, Children's Hospital of Pittsburgh, (412) 647-5466.
- 8-13 Rhinoplasty-1984, AAFPRS, Key Biscayne

JANUARY

- 19-25 Kentucky Academy of Family Physicians CME Cruise. Contact: Gayle Knopp, (502) 451-0370

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA



**FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY**

YOUR FIRST STEP TO FIRST QUALITY PROTECTION

CONTACT FIELD REPRESENTATIVES

Louisville Office
DONALD G. GREENO
400 Sherburn Lane, Suite 104,
Louisville, Kentucky 40207
(502) 895-5501

Lexington Office
CHARLES E. FOREE
Suite 103B, 152 East Reynolds Road
Lexington, Kentucky 40503
(606) 272-9124

ASSOCIATION

Emergency Medical Care Seminar

Over 500 physicians, nurses, EMT's, and paramedics attended the 14th Annual Emergency Medical Care Seminar held on June 5, 6, and 7, 1984. Fifty speakers participated in the program which highlighted "Dilemmas in Trauma,"

"New Techniques in Myocardial Diseases," and "Dilemmas in HEENT Trauma." John F. Shea, M.D., Loyola University Medical Center, keynoted the program which is chaired by E. Truman Mays, M.D., of Somerset.



E. Truman Mays, M.D., Chairman of the Emergency Medical Care Committee.



Emergency transport vehicles were on display during the seminar.



John F. Shea, M.D., Loyola University, Maywood, Il.



Allan M. Lansing, M.D., Louisville

Army National Guard OF KENTUCKY



**Professional
Medical Team**

FOR INFORMATION ABOUT THE
PROFESSIONAL MEDICAL TEAM OF THE
KENTUCKY ARMY NATIONAL GUARD,
CONTACT THE MEDICAL RECRUITING OFFICER.

CALL

LT VICKIE COOK

TOLL FREE 800-372-7601

FRANKFORT 502-564-8520

Reference Committee Meetings

Reference Committee meetings will be held on Monday, September 17, in the Lexington Convention Center.

Members of the six committees are:

Reference Committee No. 1

Donald R. Stephens, M.D., Cynthiana (Harrison)
Tom S. Maddox, Jr., M.D., Ownesboro (Davies)
R. Gary Marquardt, M.D., Murray (Calloway)
John D. Perrine, M.D., Lexington (Fayette)
R. D. Pitman, M.D., Williamsburg (Whitley)

Reference Committee No. 2

Lynn L. Ogden, M.D., Louisville (Jefferson)
Howard A. Heringer, M.D., Ft. Mitchell
(Campbell-Kenton)
John M. Johnstone, M.D., Richmond (Madison)
H. B. McWhorter, M.D., Ashland (Boyd)
James F. Rozelle, M.D., Hopkinsville (Christian)

Reference Committee No. 3

Veryl F. Frye, M.D., Somerset (Pulaski)
John A. Gergen, M.D., Frankfort (Franklin)
David C. Liebschutz, M.D., Danville (Boyle)
Sally S. Mattingly, M.D., Lexington (Fayette)
Robert L. Nold, Sr., M.D., Louisville (Jefferson)

Reference Committee No. 4

James Childers, M.D., Louisville (Jefferson)
Gordon W. Air, M.D., Crestview Hills
(Campbell-Kenton)
James E. Anderson, M.D., Ownesboro (Davies)
William R. Handley, M.D., Elizabethtown (Hardin)
Thomas M. Jarboe, M.D., Lexington (Fayette)

Reference Committee No. 5

Preston Nunnelle, M.D., Lexington (Fayette)
C. Dale Brown, M.D., Paducah (McCrackin)
John W. McClellan, Jr., M.D., Henderson (Henderson)
Lamar C. Meigs, M.D., Ashland (Boyd)
Carmel Wallace, Jr., M.D., Corbin (Whitley)

Reference Committee No. 6

Charles H. Nicholson, M.D., Lexington (Fayette)
Robert L. Houston, M.D., Eminence (Henry)
Jerry W. Martin, M.D., Bowling Green (Warren)
Judah L. Skolnick, M.D., Louisville (Jefferson)
Donald J. Swikert, M.D., Florence (Boone)

1984 TELLERS AND CREDENTIALS COMMITTEE

Credentials Committee

Millard C. Loy, M.D., Columbia (Adair)
Ardis D. Hoven, M.D., Lexington (Fayette)
James R. Pigg, M.D., Pikeville (Pike)

Tellers

Angela L. Jarvis, M.D., Owensboro (Davies)
Milo H. Schosser, M.D., Lynch (Harlan)
Paul J. Sides, M.D., Lancaster (Garrard)

Lexington Convention Center

Rooms	Reference Committee
A	#1
E	#2
F	#3
C	#4
D	#5
B	#6

Shouldn't Your Carrier Shed More Light On Its

Financial Situation?

Many professional liability carriers try to keep their insureds in the dark concerning their financial situation. Not Insurance Corporation of America. ICA's financial stability reflects our long-term commitment to the medical community.

Through sound management, conservative investments, and consistent reinsurance, ICA has grown to become one of the leading writers of professional liability insurance in the nation.

For further information about ICA's enlightened approach to

professional liability insurance, please call 1-800-231-2615; in Texas call 1-800-392-9702.



The Preferred Underwriter

Roche salutes the history of Kentucky medicine

THE DOCTOR WHO PIONEERED ABDOMINAL SURGERY



Dr. Ephraim McDowell

In 1795, Dr. Ephraim McDowell of Virginia settled in the village of Danville, Kentucky. His practice took him on horseback over hundreds of miles of wilderness.

Nevertheless, his reputation as a skillful and successful surgeon spread—especially for lithotomies, which he performed 22 times without losing a patient.¹

First ovariectomy

McDowell's true moment in history came in 1809, when he performed the first known ovariectomy for removal of a tumor from Jane Crawford, then 47. The procedure was completed in 25 minutes, and Mrs. Crawford not only recovered but lived to age 78.^{1,2}

This landmark surgery was performed under the most primitive conditions—without anesthesia or anti-

sepsis—while, the story is told, brave Mrs. Crawford distracted herself as best she could by singing hymns.²

His published reports of this case, along with two others in 1817 and an additional two in 1819, established Dr. McDowell as the physician who saved women afflicted with ovarian disease from their previously hopeless situation and, further, marked the beginning of abdominal surgery.¹ To European medical practitioners, Dr. McDowell's accomplishments offered clear evidence that medicine was coming of age in America.³

References: 1. Garrison FH. *An Introduction to the History of Medicine*, 4th ed Philadelphia, W B. Saunders Company, 1929, pp. 507-508. 2. Packard FR. *History of Medicine in the United States*, vol II New York, Hafner Publishing Company, 1963, pp. 727-728. 3. Shaflet N. The evolution of American medical literature, in *History of American Medicine*, edited by Marti-Ibañez F; New York, MD Publications, 1959, p. 106.



When the history reveals mixed depression and anxiety...

For the estimated 70 percent of nonpsychotic depressed patients who are also anxious,¹ Limbitrol provides both amitriptyline, specific for symptoms of depression, and the effects of Librium® (chlordiazepoxide HCl/Roche), the tested and dependable anxiolytic. Limbitrol is, therefore, a better choice for these patients than dual agents that contain a phenothiazine, a class of antipsychotic drugs which has been associated with tardive dyskinesia.

62% of Overall Improvement...Within the First Week

Limbitrol also has a rapid onset of action which may lead to greater patient compliance. In a multicenter study, patients taking Limbitrol experienced 62% of their overall improvement within the first week of therapy.²

In another multicenter study,³ the following symptoms associated with anxious depression were significantly reduced during the first two weeks of therapy:

- ☐ Headache—79%
- ☐ Early insomnia—91%
- Middle insomnia—87%
- Late insomnia—89%
- ☐ Gastrointestinal upset—73%

In two multicenter studies, only 1.9% of Limbitrol patients experienced cardiovascular side effects.³

Patients should be cautioned about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness such as operating machinery or driving a car.

References: 1. Rickels K. Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME; New York, Appleton-Century-Crofts, 1977, p. 316. 2. Feighner JP *et al*: *Psychopharmacology* 61:217-229, Mar 1979. 3. Data on file, Hoffmann-La Roche Inc., Nutley, NJ

In moderate depression and anxiety

Limbitrol®

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Please see summary of product information on following page.

CHANGING ADDRESS?

Please let us know at least
two months before chang-
ing your address.

Send new address to:

Journal of the Kentucky

Medical Association

3532 Ephraim McDowell Drive

Louisville, Ky. 40205

LIMBITROL® Tablets (N) Tranquilizer-Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extropyrimidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, block tongue.

Endocrine: Testicular swelling and gynecostastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine sulfate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12 5, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

Forty-Five Years Young

We have been a sponsored group insurer since 1939. You will soon receive a brochure (pictured) showing you the improved coverages now offered.

Read it and compare coverages.

UP TO \$6,000
A MONTH AT
GROUP RATES

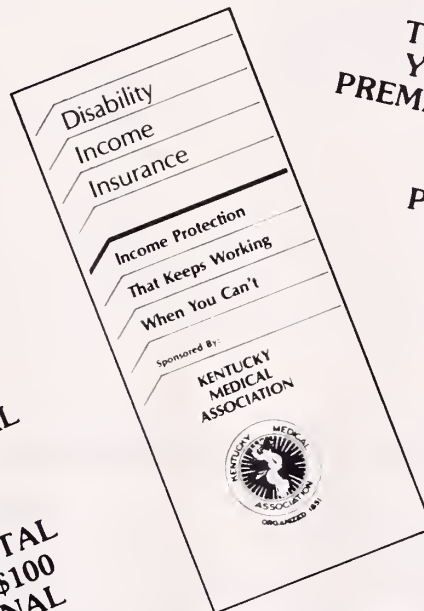
PREGNANCY COVERED
IN BASIC POLICY

COST OF LIVING
ADJUSTMENT

OPTIONAL RESIDUAL

DAILY IN-HOSPITAL
BENEFITS TO \$100
A DAY OPTIONAL

TAILOR-MADE
TO YOUR NEEDS -
3 PLANS + OPTIONAL
WAITING PERIODS



\$72,000 A YEAR
TAX FREE WHEN
YOU PAY YOUR
PREMIUM PERSONALLY

PRIVATE FLYING COVERED
MAY PURCHASE UP TO
\$100,000 AD&D @ 70¢
PER \$1,000

RENEWAL
GUARANTEE

SAME DAY CLAIM SERVICE
FROM OUR OFFICE

A.P.L.
A.P. LEE AGENCY, INC.

631 Lincoln Federal Bldg.
Fourth Avenue
Louisville, Kentucky 40202

Annual Meeting News

AMA President Joseph F. Boyle, M.D. has been invited to speak at the President's Luncheon, September 19, during the KMA Annual Meeting. The 1984 Annual Meeting program at the Hyatt Regency Lexington will feature outstanding scientific sessions and many prominent guest speakers. The theme for this year's scientific session is "Sports Medicine." Donald L. Cooper, M.D., Stillwater, Oklahoma, will speak Wednesday afternoon on the topic, "Preparing the Athlete for Competition." His presentation will include techniques that optimize the opportunities for athletes to develop to their best ability.

The House of Delegates will meet at 9:00 a.m. on Monday, September 17, followed by Reference Committees at 2:00 p.m. The final meeting of the House is set for 6:00 p.m. on Wednesday the 19th.

It is recommended that you make reservations soon at the Hyatt to be assured of receiving the special convention rates. The toll free number is 1 (800) 228-9000.

Physician Recruitment Fair September 15, 1984 Hyatt Regency Hotel Lexington, Kentucky

The Kentucky Medical Association is pleased to announce it will be sponsoring the Sixth Annual Physician Recruitment Fair at the Hyatt Regency Hotel, Lexington, Kentucky on Saturday, September 15, 1984, 11:00 a.m. to 3:00 p.m. The Fair is co-sponsored by the University of Kentucky School of Medicine, the University of Louisville School of Medicine, Department for Human Resources, Kentucky Chamber of Commerce, Kentucky Hospital Association, Kentucky Farm Bureau, and the Rural Kentucky Medical Scholarship Fund.

The program continues to provide the necessary contact between communities and physicians in order to begin the process of recruiting their services in Kentucky. Many communities have been successful in meeting their physician needs as a result of this event.

Medical residents from the states of Kentucky, Indiana, Missouri, Ohio, Tennessee, Virginia, and West Virginia will be invited to attend.

Communities, hospitals, and physicians interested in participating in this year's Physician Recruitment Fair are requested to contact Eileen Dougherty at KMA Headquarters Office, 3532 Ephraim McDowell Drive, Louisville, Kentucky, telephone: 502-459-9790.

Kentucky Physicians Gather to Update Medical Knowledge

Specialists in internal medicine and related medical fields will take part in a two-day scientific meeting at the Seelbach Hotel in Louisville, Kentucky, October 12-13, 1984.

The Kentucky Regional Meeting of the American College of Physicians (ACP) offers the state's physicians up-to-date information of developments in the field of internal medicine.

Carroll H. Robie, M.D., FACP, of University of Louisville School of Medicine, is the ACP Governor for the state of Kentucky. Elected by popular ballot, Doctor Robie coordinates local ACP affairs and represents the Kentucky College members of the national level.

For more information contact: Kentucky Regional Meeting of the American College of Physicians, Carroll H. Robie, M.D., FACP, 1169 Eastern Parkway, Louisville, Kentucky 40217, (502) 459-3900.

Kentucky Doctors Rank Among Top U.S. Medical Specialists

Three KMA physicians have been selected by *Town & Country* magazine as members of the 1,500 "best medical specialists in the U.S."

The physicians are Doctor William H. Anderson, professor of medicine at the University of Louisville School of Medicine; Doctor Ward O. Griffen, Jr., professor and chairman of surgery at the University of Kentucky Medical Center; and Doctor Hiram C. Polk, Jr., chairman of the Department of Surgery at the U of L School of Medicine.

Town & Country chose the 1,500 medical specialists after consultation with physicians throughout the United States. Those listed, according to the magazine, have "gained national recognition . . . and are judged by their peers to be superior doctors. What was sought was not simply a physicians' research reputation, but his skills as a clinical doctor."

The magazine ranked physicians in numerous medical categories. Doctor Anderson is one of 52 lung specialists cited; Doctors Polk and Griffen are two of 44 gastrointestinal surgery specialists listed.



SPECTRUM EMERGENCY CARE, Inc.

EMERGENCY MEDICINE

Part-time and full-time positions are available in over 15 emergency departments located throughout Kentucky. Spectrum provides a competitive income, professional liability insurance and flexible scheduling (8-60 hour shifts). For details write or call:

Spectrum Emergency Care, Inc.
3720-B Olentangy River Road
Columbus, OH 43214

1-800-848-2938 / 614-457-9761

All inquiries will be kept confidential



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

**Call today for the financial security
specialist in your area.**

**Endorsed by the
Kentucky Medical Association**



AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

SYMPOSIUM ON TYPE II DIABETES

OCTOBER 26, 1984
(9AM - 5PM)

Capitol Plaza Hotel, Frankfort, Ky.

Sponsored for physicians by the American Diabetes Association, Ky. Affiliate, Inc. with assistance from the University of Kentucky Office of Continuing Medical Education

Speakers Include:

Dr. Stefan S. Fajans
University of Michigan

Dr. Charles M. Clark, Jr.
Indiana University

Dr. James W. Anderson
Dr. James F. McMurry, Jr.
University of Kentucky

Dr. Michael A. Pfeifer
Dr. Robin Ewart
University of Louisville

Dr. Carlos Hernandez
Commissioner of Health
Commonwealth of Kentucky

Contact: Office of CME, 132 College of Medicine Office Bldg.
University of Kentucky, Lexington, Ky. 40536-0086

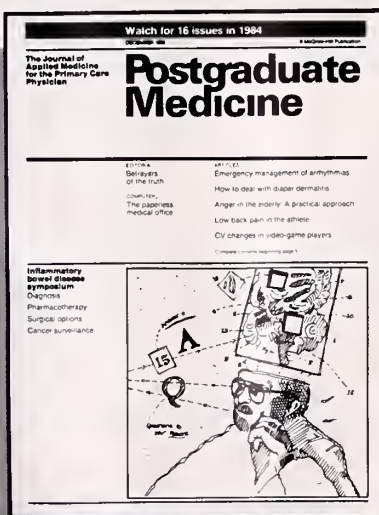
International Conference On Aids

An International Conference in Acquired Immune Deficiency Syndrome (AIDS) will be held on April 15-17, 1985, at the World Congress Center, Atlanta, Georgia, sponsored by the Centers for Disease Control; the National Institutes of Health; the Food and Drug Administration; the Alcohol, Drug Abuse, and Mental Health Administration; and the Health Resources and Services Administration. The purpose of the meeting is to review prevention strategies for the control of AIDS and to exchange information on screening and diagnostic tests for AIDS and on the epidemiology, virology, immunology, clinical manifestations, and treatment of AIDS. Seating will be available for 1,800 participants. An announcement of keynote speakers and a call for abstracts will be published later. To obtain further information and future announcements, write to: AIDS Conference, building 1, room 2047, Centers for Disease Control, Atlanta, Georgia 30333.

T U R N

TO POSTGRADUATE MEDICINE

*Your single,
most important
source of information
on General and
Internal Medicine!*



Each issue filled with diverse practical information in all areas of medical practice including:

- IM Subspecialties
- Pediatrics
- Obstetrics/Gynecology
- Emergency Medicine
- Other Key Clinical Areas

Read every issue
**Postgraduate
Medicine**

Where Clinical Diversity is an Art.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month two months preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

KENTUCKY LICENSED OB-GYN Needed as Locum Tenens. Permanent Position Negotiable. Submit Resume, References and Schedules to: Physicians, Inc., P.O. Box 960, Ironton, Ohio. 45638.

General Leasing
Company of Kentucky

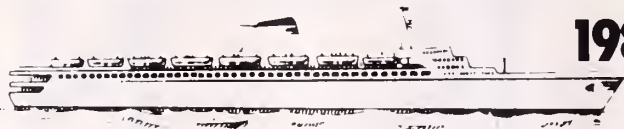
Professional Transportation Management

We administer your
physician's lease plan.

We lease all makes —
everywhere.

**GENERAL
LEASING**

121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383



1985 CME Cruise/Conferences on Legal-Medical Issues

Accredited for 20-24 CME CAT. 1 Credits by The Suffolk Academy of Medicine
Approved for 20-24 AAFP Prescribed Credits

The programs listed below were scheduled prior to 12/31/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act-P.L. 94-445, effective 1/1/77, with the exception of the Hawaiian Conferences, which conform to the requirements of P.L. 97-424.

24 CME CREDITS

- ☐ *Jan. 9-19 (from Ft. Lauderdale, FL)
10 day Caribbean - TSS FAIRWIND
- ☐ *Mar. 30-Apr. 10 (from Los Angeles, CA)
11 day Mexican Riviera - TSS FAIRSKY
- ☐ *July 8-20 (from San Francisco, CA)
12 day Alaska/Canada - TSS FAIRSKY

24 CME CREDITS

- ☐ *July 24-Aug. 3 (from Ft. Lauderdale, FL)
10 day Caribbean - TSS FAIRWIND
- ☐ August 9-23 (from Genoa, Italy)
14 day Mediterranean - MS COLUMBUS

20 CME CREDITS

- ☐ Monthly 7 day cruise/seminars from Honolulu, HI on a variety of medical topics.
SS CONSTITUTION, SS INDEPENDENCE

*FLY ROUND TRIP FREE

Please send Color Brochures and additional information on the conferences checked above.

PLEASE PRINT

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Sponsored by International Conferences (516) 549-0869

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵ ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY
CONFIRMED BY EXPERIENCE

DALMANE®

flurazepam HCl/Roche

THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights²⁻⁴
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE®
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE®
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

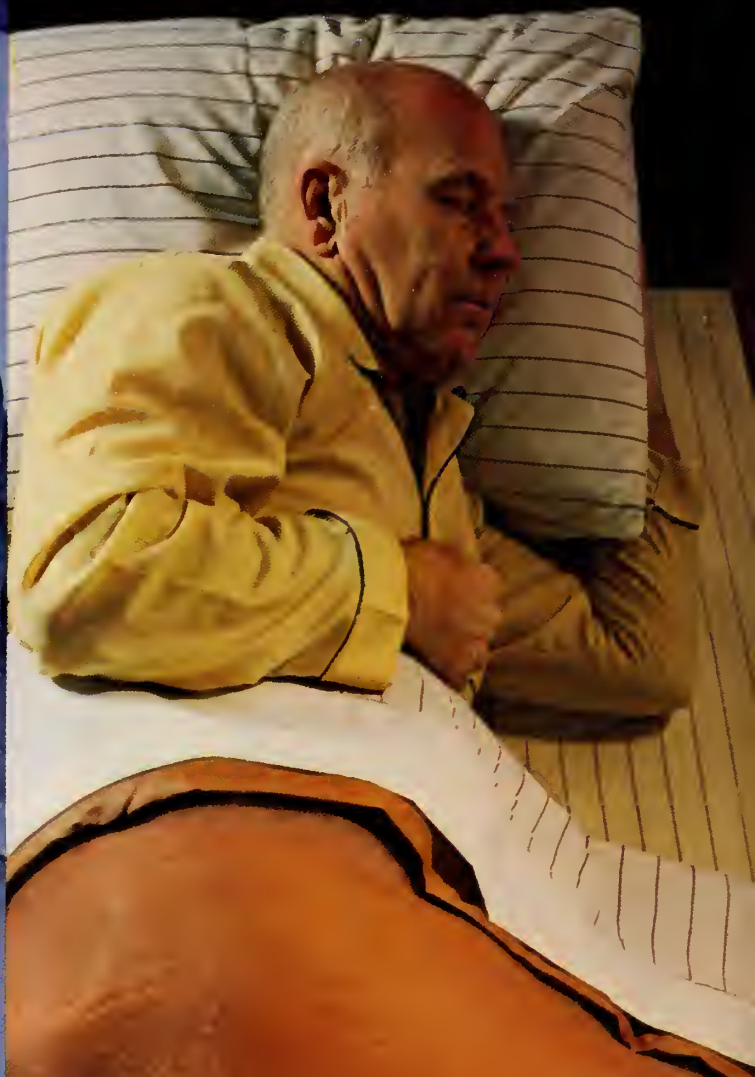
Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]
flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES

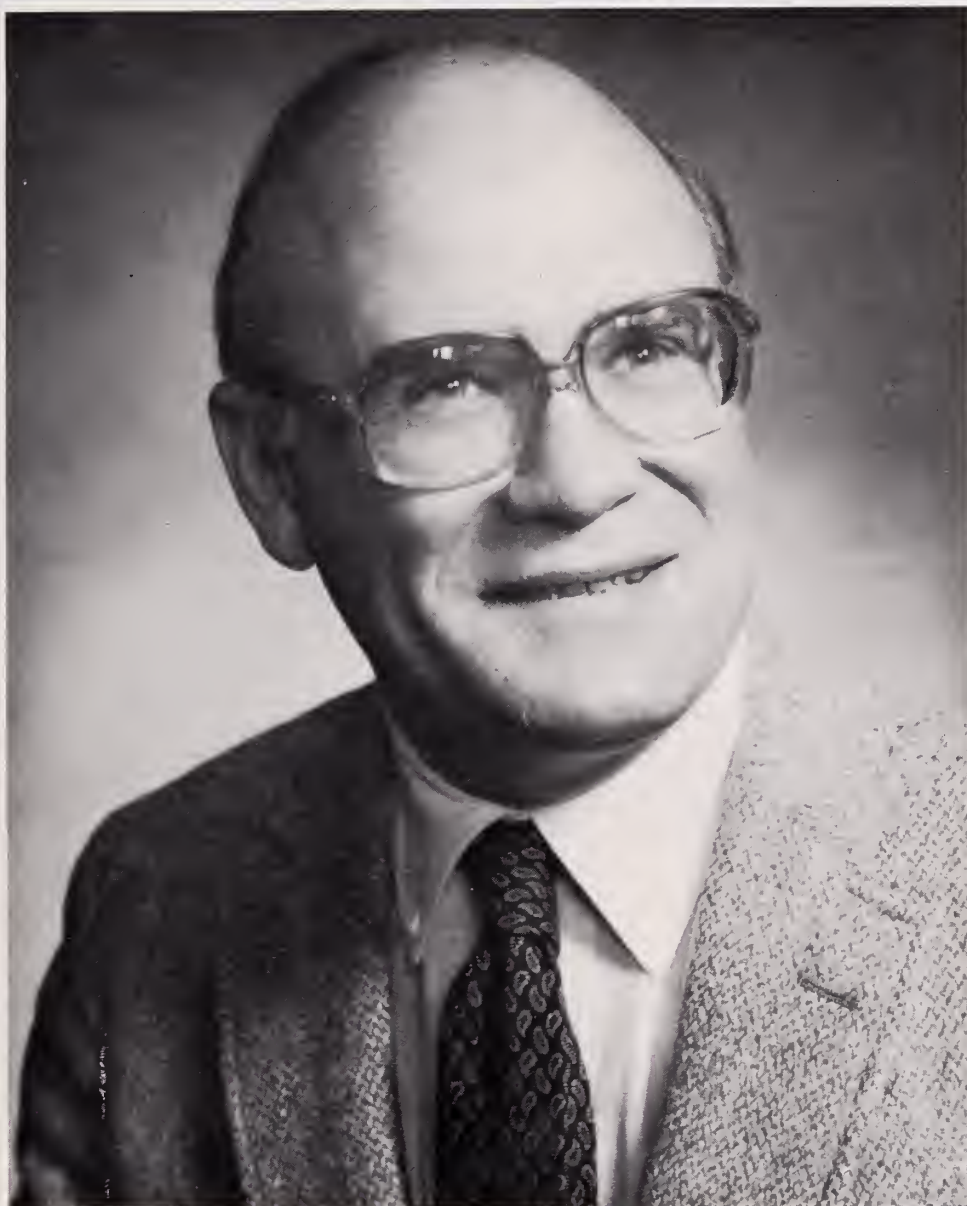


See preceding page for references and summary of product information.
Copyright © 1984 by Roche Products Inc. All rights reserved.

Keep Front Cover.

STACKS

JOURNAL OF THE
Kentucky
Medical
ASSOCIATION



Charles C. Smith, Jr., M.D.
1984-85 KMA President

Library of
College of Phys. of Phil.
19 South 22nd St.
Philadelphia, PA 19103

LIBRARY OF THE
COLLEGE OF PHYSICIANS
PHILADELPHIA

NOV 6 - 1984

There is a Name for Quality Psychiatric Care.

And Here's Where That



Outstanding Leadership in Charter Medical Corporation.

Leadership Stands Out in Kentucky.

For many patients, the most effective treatment can be best delivered by psychiatrists, working with highly qualified professionals, in a freestanding hospital whose entire staff is dedicated to quality psychiatric care.

Commitment to this philosophy is exemplified in each and every Charter Medical Hospital. All across America. Without exception.

You can depend on the fact that the staff will work with you to design and implement an individualized treatment plan for your patient. Involvement of the patient's family in the treatment process will be encouraged. There will be regular communication, between the hospital and the referring professional, about the patient's status. All psychiatrists on staff are Board Certified or Board Eligible. There is a wide variety of therapies available to enhance individualized treatment. And every Charter Medical Hospital has been designed to provide a modern therapeutic environment to promote your patient's recovery.

Here's where you can expect to find this outstanding leadership in Kentucky.

Charterton Hospital

507 Yager Avenue
LaGrange, Kentucky 40031
(502) 222-7148

Beds: 66
Psychiatric Staff: 4
Programs: Adolescent and Adult Addictive Disease

Other Programs: Counseling and Intervention Services in Louisville, KY

For further information about Charterton or admission procedures, contact:

Medical Director: Thomas Cassidy, M.D.

Hospital Administrator: Ralph Suratt

Charter Ridge Hospital

3050 Rio Dosa Drive
Lexington, Kentucky 40509
(606) 269-2325

Beds: 80
Psychiatric Staff: 24
Programs: Adult, Adolescent and Child Psychiatric; Adult Addictive Disease

For further information about Charter Ridge or admission procedures, contact:

Medical Director: Verner Stillner, M.D.

Hospital Administrator: Jim Button

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA
NOV 6 - 1984



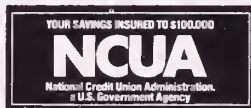
CHARTER
MEDICAL
CORPORATION

"The Doctors' Bank"

KMA Physicians Financial Services — a Federal Credit Union — is less than two years old. But we're already being called "The Doctors' Bank."

Why? Because only KMA members, their families, their employees and P.S.C.s are eligible to enjoy the many benefits offered by this full-service financial institution. **No one else is eligible!**

As a KMA member, you can take advantage of the high return on your investment dollars, low interest loans and many free services offered by "The Doctors' Bank." Find out how you can benefit from membership in KMA-PFS. Call our office nearest you, or mail in this coupon today. (Be sure to indicate the areas you want to know more about.)



FEDERAL CREDIT UNION

- ☐ Investments (Long and short term savings accounts, IRAs, Keoghs)
- ☐ Interest-drawing checking accounts with overdraft protection
- ☐ VISA and MasterCard — No Fee
- ☐ Low interest loans — including substantial personal line of credit
- ☐ Payroll deduction programs and direct deposit plans
- ☐ All of the above and more!

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

KMA Physicians Financial Services

Toll Free: 1-800-292-1999

Main Office: KMA Building, 3532 Ephraim McDowell Drive
Louisville, KY 40205 (502) 459-0900

Medical Center Office: Medical Towers South, Suite 166
Louisville, KY 40202 (502) 581-1335

Bluegrass Office: 330 Waller Avenue
Lexington, KY 40504 (606) 278-2263



JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 10

October 1984

SCIENTIFIC

Techniques and Results of Microsurgical
Vasectomy Reversal

Arnold M. Belker, M.D. 507

Involuntary Outpatient Psychiatric Care
William D. Weitzel, M.D.

511

Testicular Scanning in the Evaluation of the
Acute Scrotum

*C. Mark Homra, B.S., Kerry L. Short, M.D., Lillie L. Coffey, R.T.,
James I. Harty, M.D. and Mohammad Amin, M.D.* 514

EDITORIAL

SZS 521

PROFILE

Charles C. Smith, Jr., M.D.
KMA President

522

ASSOCIATION

KMA Wraps Up 134th Annual Meeting 535

REGULAR FEATURES

President's Page 505

News 538

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign. (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1984-1985

Officers

President	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5553	1985
President-Elect	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371.....	1985
Immediate Past President	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334	1985
Vice President	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145.....	1985
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1987
Chairman, Board of Trustees	NELSON B. RUE, M.D. 1109 State Street, Bowling Green, KY 42101 (502) 781-5111.....	1985
Vice Chairman	HENRY R. "HANK" BELL, M.D. East Main Street, Elkton, KY 42220 (502) 265-2574	1985
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker	THOMAS L. HEAVERN, M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, M.D., 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., M.D., 3828 Bardstown Road, Louisville 40218 (502) 459-4900	1986
DONALD C. BARTON, M.D., Doctors Park, Corbin, 40701 (606) 528-2124.....	1985
RUSSELL L. TRAVIS, M.D., 152 West Zandale, Lexington, 40503 (606) 277-6143	1986

Alternate Delegates to AMA

WALLY O. MONTGOMERY, M.D., 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, M.D., 1000 Medical Arts Building, Louisville 40217 (502) 456-2180	1986
HAROLD L. BUSHEY, M.D., 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
CARL COOPER, JR., M.D., Cooper Clinic, Bedford 40006 (502) 255-3282.....	1986

Trustees

1st JOHN D. NOONAN, M.D., P. O. Box 7206 Paducah 42001 (502) 443-6472	1986
2nd.... ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265.....	1985
3rd.... HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574.....	1986
4th THOMAS R. TAYLOR, M.D., 914 N. Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216.....	1987
6th NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111	1987
7th WILLIAM P. McELWAIN, M.D., 321 S. Main Street, Lawrenceburg 40342 (502) 839-6981	1985
8th WILLIAM B. MONNIG, M.D., 201 Medical Plaza, 3104 Dixie Highway, Erlanger 41018 (606) 341-2672..	1987
9th R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th PRESTON P. NUNNELLEY, M.D., 2620 Wilhite Drive, Lexington 40503 (606) 278-0363.....	1985
11th DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1987
12th DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th GARNER E. ROBINSON, M.D., 700 Thirteenth Street, Ashland 41101 (606) 324-6181	1985
14th RONALD D. HALL, M.D., Town & Country Center, Pikeville 41501 (606) 432-5532	1986
15th EMANUEL H. RADER, M.D., P. O. Box 70, Pineville 40977 (606) 337-3559	1987

OCTOBER BUYERS' GUIDE FOR JOURNAL OF KMA

Blue Cross/Blue Shield of Kentucky	531
Charter Medical Corporation	500,501
Classified	544
General Leasing Corporation	534
International Conferences.....	540
Jefferson County Medical Society	520
KMA Insurance Agency, Inc.	519,542
KMCO	525
KMA Physicians Financial Service	502
KMIC	536
A.P. Lee Agency, Inc.....	526

Eli Lilly & Co.....	530
Louisville Baptist Hospitals.....	537
Medical Protective Company	529
Physician Data Systems.....	541
Reynolds and Reynolds.....	544
Roche Laboratories	545,546
Smith, Kline & French Lab.....	527
Trover Clinic	544
The Upjohn Company.....	517,518
U.S. Air Force	543
Wyeth Laboratories	532,533,534

PRESIDENT'S PAGE



It is a high moment to assume this office and reflect on the 133 years since that first meeting of the Kentucky Medical Association in Frankfort. I would first like to thank the House of Delegates for electing me and say that I will be watching over things until we meet again.

The tenor of this non-legislative year will be one of both action and reaction.

First, concern for the costs of medical care has arrived on all of us. Second, even though costs are said to be excessive, every entrepreneur is trying to get in the act. Third, materialism is now the order of the day in medicine in many eyes. Everybody says we're going to keep up quality, cut costs, and at the same time all third parties will make a profit.

I'm here to say that as a teacher, student, and practitioner of medicine there is absolutely no substitute for the physician in the care of the patient. My term will be spent in making everyone aware of this.

In a certain midwest department of radiology there is a stethoscope under glass in the antique instrument section. As Dr. Dickinson Richards has said "as long

as you have a physician on one end of a stethoscope and a patient on the other, the doctor will be within 25 centimeters of the patient.

There are systems of care and quality assurance coming which apply mediocrity or less. We must preserve the ability to practice as judgement leads us. Some of my best diagnoses have come through that old friend Serendipity.

There is evidence in recent months that our friends in the hospitals have become a health care industry prone to enter the practice of medicine in a variety of ways. This represents abandonment of a historic position in this state. With greater need for cooperation than ever before under prospective pricing we need to confront this potential problem area.

Because of the permanent contraction of the hospital census for a variety of reasons, home health care will assume an increasing role in care. Innovations such as the implantable cardioverter-defibrillator and electrophysiology lab are a portent of things to come in the "electronic cottage" where the physician and the house call will again be a larger part of the system of care.

The successful maintenance of the physicians' place depends on keeping that sensitivity and idealism with which most of us started.

When I started practice my mother sent me a copy of Poor Richard's Almanac with just one aphorism circled. "God heals, and the doctor takes the money." This means to me working every day as we always have to take care of our people despite the intrusions of other parties. It means being responsive to the medical and financial needs of our people.

The KMA will this year work on a program of prevention for our schools on drugs, alcohol, tobacco and self-esteem. We also formed a new Committee on the Elderly to look at their special problems.

During this year we will have an interim program for our members to again study the socioeconomic changes upon us.

We are opening our arms to academic physicians, young physicians and women physicians to join organized medicine.

"To save the heathen is honorable, but selling Bibles makes more money." Accordingly your KMA now offers a full line of insurance, a credit union with statewide automatic teller cards, and a new computer company to attract new members as well as old, and we have already worked with our two medical schools and their students in securing guaranteed student loans.

In the August 10th issue of the *JAMA* is Doctor Joseph Boyle's inaugural address as president of the AMA in which he addresses our moral duties as physicians. It is significant that in that same issue is the finale of a one year series of Landmark Articles in Medicine. It is Doctor Francis Peabody's "The Care of the Patient" which a lot of you received in your junior medicine packets at the University of Louisville 20 years ago. It is here that this illustrious man stated that "The secret of caring for the patient is **caring** for the patient."

One year ago I told you "I love this state and I love its people. I know a lot of Kentucky doctors and their patients; my job is to let nothing come between them."

Techniques and Results of Microsurgical Vasectomy Reversal

ARNOLD M. BELKER, M.D.

Results of 42 consecutive vasectomy reversals are reported. Postoperative sperm concentrations are reviewed, and reasons for postoperative azoospermia in 12% (five of the 42 patients) appear to be related to adverse physiologic consequences of the vasectomy in these patients rather than to failure of the anastomosis. Of 38 patients eligible for conception, pregnancy occurred in 23 (60%) of their wives. An additional seven (17%) of the 42 patients, including all four not currently eligible for conception, had normal postoperative sperm concentrations and motility. Therefore, even higher pregnancy rates in the wives of the total 42 patients are anticipated as further time elapses. These results compare favorably with those reported by others. Anastomotic techniques are shown, and factors influencing decisions concerning performance of simple vasovasostomy (vas anastomosis) or the more complicated "by-pass" vasoepididymostomy are discussed.

Vasectomy reversal (vasovasostomy) has been popularized because of a rising divorce and re-marriage rate in this country combined with improved results obtained by a microsurgical anastomotic method introduced by Silber¹ in 1975. Since a review of techniques and results of vasectomy reversal was published in this journal in 1977,² accumulation of clinical experience has prompted this report.

Methods

All urologists who do not use optical magnification (optical loupes or the operating microscope) and some urologists who use optical magnification for vasovasostomy utilize a full-thickness "one-layer" suturing

technique (Figure 1). This author is convinced that a "two-layer" anastomotic technique, which can be performed only with the amount of magnification (10X to 20X) afforded by the operating microscope, yields better results. "Two-layer" anastomoses accomplish independent approximation of the mucosal and muscular layers of the vas deferens. For the author's method³ of performing the "two-layer" anastomotic technique (Figure 2), microsutures of 10-0 nylon are used for the mucosal layer and 9-0 nylon for the muscular layer suturing.

Until about one year ago, all vasovasostomies in this series were performed with general anesthesia on hospitalized patients. During the past year, about 90% of vasovasostomies have been performed with local anesthesia on an out-patient basis.

At this time, 204 microsurgical vasovasostomies have been performed in this series. As is true with any new procedure, results improve as surgical experience increases. After vasovasostomy, pregnancy rates are not significant until at least 18 to 24 months have elapsed following the procedure, because of the variable length of time required to achieve a pregnancy in normally fertile couples. Therefore, the results are reported herein of 42 consecutive vasovasostomies performed over 20 months ago.

Results

Postoperative sperm concentrations are shown in the table. The 12% (five of 42) of patients who remained azoospermic would appear to represent operative failures. However, they all had either poor quality sperm or no sperm in the vas fluid during vasovasostomy. Therefore, success was less likely in these patients due to the characteristics of sperm in the vas fluid at the time of vasovasostomy.

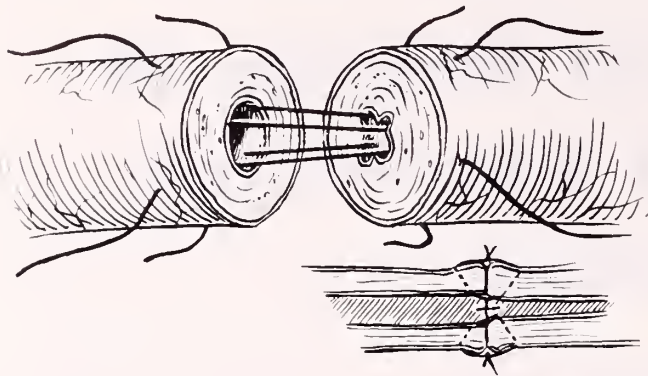


Fig. 1. Full-thickness sutures. After these are tied, interposed more superficial outer muscular layer sutures are placed. (Reproduced with permission.³)

Four of the 42 patients were ineligible for a conception and thus were deleted from postoperative pregnancy rate calculations. Reasons for ineligibility and deletion were divorce shortly postoperatively (two) or discovery of significant fertility problems in the wife (two). All four deleted patients had normal postoperative sperm concentrations (over 20 million sperm per ml. of semen) and sperm motility (at least 50% of sperm actively motile). Pregnancy was achieved in the wives of 23 (60%) of the remaining 38 patients. Results of vasovasostomy performed by other surgeons and additional factors concerning technical aspects of vasectomy reversal may be found in other articles.¹⁻⁶

Discussion

The increasing incidence of sperm disappearance from the vas fluid as time increases after vasectomy has been reported by the Vasovasostomy Study Group.⁷ After vasectomy in some cases, sperm disappearance may be due to a back-pressure-induced rupture of the epididymal tubule and resulting epididymal obstruction at the point of rupture.⁸ However, sperm may be absent from the vas fluid at the time of vasovasostomy for other reasons, which are poorly understood and may not adversely affect fertility after vasovasostomy.

When sperm are not present in the vas fluid during planned vasovasostomy, the decision regarding whether vasovasostomy or "by-pass" vasoepididymostomy (Figures 3 and 4) should be performed is difficult. Factors that must be considered in this decision are multiple. The longer the time from the vasectomy to its reversal, the more likely it is that sperm absence from the vas fluid will be due to an epididymal obstruction and that

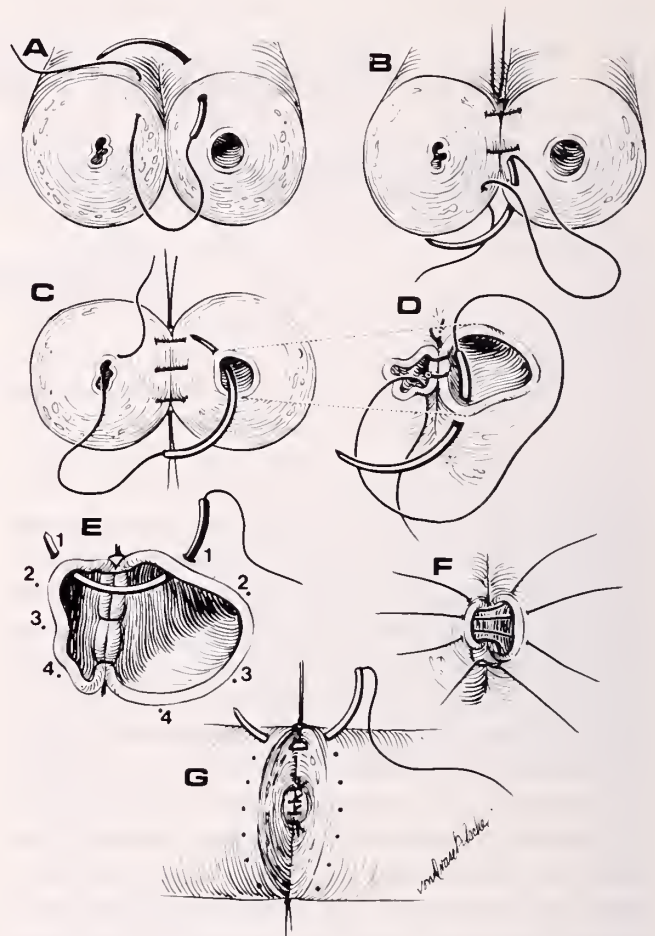


Fig. 2. Author's method of microsurgical two-layer vasovasostomy. Mucosal and muscular layers are approximated independently. Note discrepancy in luminal diameters. A and B. Three posterior row muscular layer sutures placed. C and D. Note change in magnification indicated by broken lines. E. Three to five anterior row mucosal sutures are placed in order indicated by numbers. F. Sutures are cut long and left untied until all anterior row mucosal sutures are placed. Sutures are then tied in reverse of order of placement. G. Anterior 270° (diagram depicts only 180°) of muscular layer sutures are placed. (Reproduced with permission.³)

TABLE		
Postoperative Sperm Concentration In 12 Consecutive Patients		
Sperm Concentration (Millions/ml.)	No.	%
Azoospermic	5	12
< 10	8	19
10-19	3	7
≥ 20	24*	57*
No postop. count	2	5
Totals	12	100
*Includes 17% (7 of 12 patients) with no pregnancy yet.		

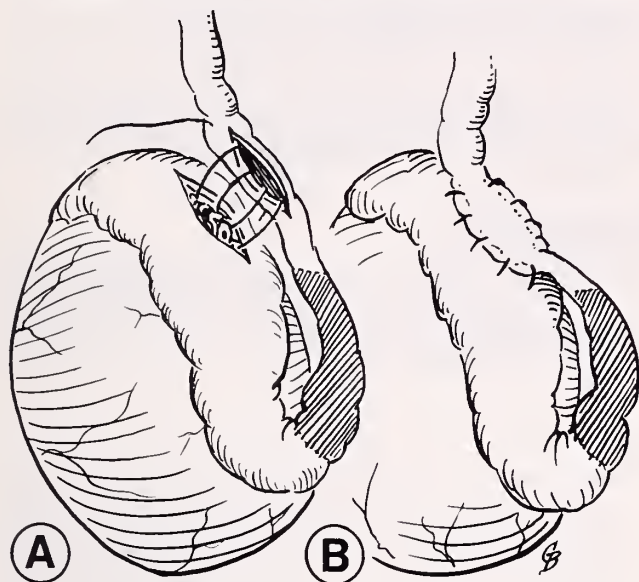


Fig. 3. The older method of vasoepididymostomy, whereby vas muscular layer was anastomosed to epididymal tunic, relying on establishment of a fistula of the incised epididymal tubule to keep sperm flowing into the vas. (Reproduced with permission.⁵)

vasoepididymostomy will be required. If the vasectomy has been performed very high in the scrotum or if a long segment of vas has been resected at the time of the vasectomy, only vasovasostomy may be technically possible. If the vas fluid appears clear and colorless,⁸ or if the vas fluid volume is profuse, results of vasovasostomy may be good, even if sperm are absent from the vas fluid. Sharlip⁹ has reported fertile results in over half of his patients if only vasovasostomy was performed when sperm were absent from the vas fluid bilaterally during vasovasostomy. However, his series was small (10 patients), and larger series may not substantiate his data. If sperm are not present in the vas fluid during planned vasectomy reversal, the urologist may inspect the epididymis for evidence of obstruction, but he must be aware that epididymal obstruction may not be apparent to inspection in all cases. Also, the surgeon's ability to perform vasoepididymostomy, which is technically much more difficult than vasovasostomy, must be considered. These factors influencing performance of vasovasostomy or vasoepididymostomy when sperm are not found in the vas fluid intraoperatively have been considered in detail.¹⁰ If vasoepididymostomy is required, the microsurgical method shown in Figure 4 is more successful than the older "fistula" technique shown in Figure 3.

Conclusions

Microsurgical techniques have improved results of
October 1984

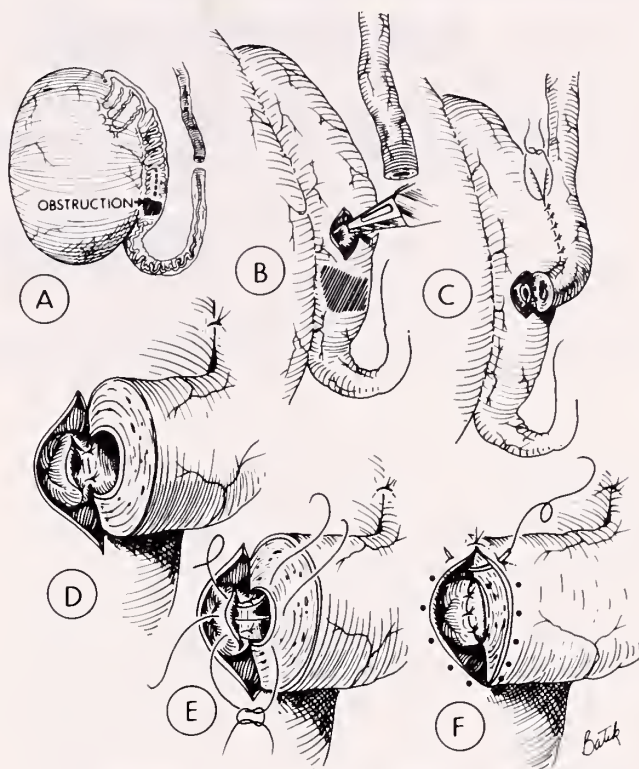


Fig. 4 Microsurgical end-to-side method of vasoepididymostomy, in which vas mucosa is sutured to edges of incised epididymal tubule. (A) shows level of incision through epididymal tunic above obstruction. (B) shows incision into the epididymal tubule. (C) shows vas muscular layer sutured to epididymal tunic above and at level of epididymal incision. Two-layer approximation of vas muscularis to epididymal tunic (C and F) and vas mucosa to edge of epididymal tubule (D and E) is indicated. (Reproduced with permission from Crais, TF, Jr: Reproductive and urogenital microsurgery. Clinics in Plast Surg 10:155-171, 1983).

vasectomy reversal procedures, and a 60% pregnancy rate is reported herein. Modern concepts allow performance of these procedures with local anesthesia on an outpatient basis. If sperm are absent from the vas fluid during a planned vasectomy reversal procedure, multiple factors determine whether only vasovasostomy or "by-pass" vasoepididymostomy should be performed.

Addendum

After this report was submitted for publication, one additional pregnancy occurred. A patient who had been classified as ineligible for a conception due to divorce shortly after his vasovasostomy four years ago has remarried and his new wife recently has become pregnant. Therefore, pregnancy occurred in 24 (62%) of the wives of 39 patients now eligible for a conception. An additional six (14%) of the total 42 patients, including the three still ineligible for a conception, have normal postoperative sperm concentrations and motility.

VASECTOMY REVERSAL—Belker

References 1. Silber SJ: Microsurgery in clinical urology. *Urology* 6:150-153, 1975. 2. Belker AM, Acland RD, Roberts TL, III and Sexter MS: Vasectomy reversal: review and assessment of current status. *J Ky Med Assoc* 75:536-537, 1977. 3. Belker AM: Microsurgical two-layer vasovasostomy: simplified technique using hinged, folding approximating clamp. *Urology* 16:376-381, 1980. 4. Belker AM: Urologic microsurgery--Current perspectives: I. Vasovasostomy. *Urology* 11:325-329, 1979. 5. Belker AM: Vasovasostomy. In Resnick MI (Ed.), *Current Trends in Urology*, Vol. 1. Baltimore: Williams and Wilkins, 1981, pp. 20-41. 6. Belker AM: Vasovasostomy and vasoepididymostomy. AUA Update Series, Lesson 2, Vol. 1. Houston: American Urological Association, Inc., Office of Education, 1981. 7. Belker AM, Konnak JW, Sharlip ID and Thomas AJ, Jr: Intraoperative observations during vasovasos-

tomy in 334 patients. *J Urol* 129:524-527, 1983. 8. Silber SJ: Epididymal extravasation following vasectomy as a cause of failure of vasectomy reversal. *Fertil Steril* 31:309-315, 1979. 9. Sharlip ID: The significance of intravasal azoospermia during vasovasostomy: answer to a surgical dilemma. *Fertil Steril* 38:496-498, 1982. 10. Belker AM: Microsurgical repair of obstructive causes of male infertility. *Semin Urol* 2:91-98, Feb., 1984.

From the Division of Urology, Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky. Reprint requests to: Arnold M. Belker, M.D., 250 East Liberty Street, Louisville, KY 40202.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Involuntary Outpatient Psychiatric Care: A Timely Innovation

WILLIAM D. WEITZEL, M.D.

Historical development of involuntary psychiatric care guidelines are summarized. Involuntary court-ordered outpatient treatment is now authorized in Kentucky and 27 other states. This seldom used approach works elsewhere, could constructively affect at least 100 people per year, and deserves further discussion and implementation.

Psychiatry's involvement with the American legal system has immersed clinicians in the inevitable contest between society's need for order and stability and each individual citizen's right to protection from unconstitutional and arbitrary restrictions of freedom of behavior. Involuntary civil commitment of mentally ill patients actually involves real life decisions in which both desirable goals must be balanced.

During the colonial period in our nation's history, the only laws concerning violent and dangerously insane individuals dealt with detention under authority of the sovereign's police powers, ie, those considered dangerous to others were arrested. A Massachusetts statute of 1676 ordered the selectmen of towns with "dangerously distracted persons" to take care of them "that they do not damnify others."¹ Not until the 1780s did various states enact legislation which explicitly provided for the lawful confinement of those who suffered from "lunacy" or were otherwise so "furiously mad" as to be harmful to others. No specific laws concerning civil commitment procedures were enacted until the middle of the 19th century which provided legislative safe-guards protecting personal liberty and civil rights.² Prior to the Civil War, civil commitment of patients to hospitals under statutory authority was effected easily and often merely on the request of a friend or relative.

In 1845, a new idea was introduced into this process. Josiah Oakes petitioned the Massachusetts Supreme Court that year to release him from confinement and claimed

that his family had committed him to an asylum without justification. The Chief Justice of the Massachusetts Supreme Court denied his request and endorsed the idea that the confinement of a mentally ill patient should continue as long as it is required for the patient's own safety or for that of others and that this is the proper limitation.³ This decision is reputed to have established the first guidelines for therapeutically justifying and also limiting the extent of involuntary hospitalization.

The evolution of involuntary commitment legislation changed further after the 1860s due to the efforts of Mrs. E.P. Packard. This individual was involuntarily hospitalized for three years in an Illinois state mental institution after differing publically with her husband about a religious issue. Her husband was a preacher and he made use of an Illinois statute that allowed a married woman to be committed on the mere petition of her husband "without the evidence of insanity or distraction required in other cases." After her discharge Mrs. Packard portrayed herself as a victim and launched a successful nationwide campaign for the enactment of changes in the civil commitment laws to include important safeguards already present in criminal law such as notice to the patient that a petition for civil commitment had been made, a formal judicial hearing on the matter, and finally the right to a jury trial.

There were no provisions in the United States for voluntary hospitalization in public mental institutions until the end of the 19th century.⁴ After emphasis shifted from a custodial care perspective to interest in early diagnosis and treatment of mental disease during the mid-twentieth century, states like Kentucky began to alter their involuntary psychiatric commitment rules.

Current guidelines for civil commitment are described by statute.⁵ All four of the following criteria need to be met:

- a. The individual must be a mentally ill person.

- b. Such a person must pose a danger to self, family, or others of substantial physical harm including actions which deprive self, family, or others of the basic means of survival including provision for reasonable shelter, food, or clothing.
- c. The facility to which the individual is committed must be able to provide the care that is needed.
- d. Treatment should be provided in the least restrictive alternative setting.

These four criteria became part of Kentucky statute in 1982 and make state guidelines contemporary with developing legal decisions. The least restrictive alternative principle was first promulgated in a 1972 federal court decision involving a Wisconsin civil commitment statute.⁶ The nature of the case involved due process rights of patients in involuntary psychiatric hospitalizations and also mandated beyond a reasonable doubt standard of proof that has also been included in Kentucky law. Review of the Kentucky civil commitment statute reveals two sources of permission for the implementation of the intent of the least restrictive alternative directive on an outpatient status:

- a. during the interim between a preliminary hearing and the formal judicial finding that an individual meets the previously described four criteria for court ordered involuntary hospitalization;⁷ and
- b. after the acute management phase of an involuntary hospitalization, "an authorized staff physician may release a patient on convalescent leave status when the physician concludes that the patient would not present a danger or threat of danger to self or others if provided with continued medical supervision in a less restrictive alternative mode of treatment. The hospital maintains continuing responsibility and the plan of treatment is directed by the hospital. The hospital may at any time readmit the patient without additional court proceedings; the Secretary for the Department of Human Resources or a staff physician may issue an order for immediate rehospitalization."⁸

The concept of involuntary outpatient psychiatric care engenders mixed emotions among those being responsible for patient care management. In fact, the two outpatient situations permitted under Kentucky civil commitment statute are seldom if ever used. Outpatient status can be described as a gradation in supervision from nursing home placement, community halfway houses, mini-homes licensed by the state; to even in-

dependent living. The obvious attractiveness of this concept includes the opportunity for responsible deinstitutionalization of individuals and the expectation of reduced cost to government from reduced use of placement in expensive state residential facilities.

Release from the alternative of involuntary hospitalization to involuntary outpatient treatment status has been endorsed in a recent American Psychiatric Association position statement "upon the condition that if the patient fails to follow through with or respond acceptably to such outpatient treatment, the patient may be returned to inpatient treatment for the remainder of the operative period of commitment."⁹ Many scholars believe that how and when patients are released from involuntary hospitalization is second in significance only to the criteria for the original commitment.¹⁰ Twenty-eight states currently allow involuntary outpatient psychiatric care and the delegation of responsibility for decision making varies. For example, New Mexico confers great discretion on the committing court whereas Iowa's statute is more deferential to the judgement and recommendations of the treating psychiatrist.^{11,12}

It seems obvious that a successful compulsory outpatient treatment statute needs to be clear about:

- a. the standard to be applied for outpatient commitment;
- b. the role of the court in formulating and ordering a treatment plan;
- c. the duration of the outpatient commitment;
- d. the delegation of responsibility for monitoring and supervision of outpatients subject to such a court order; and
- e. the circumstances of revocation of outpatient status.

A good statute would address each point and could reflect the best current thinking in the state. There is little unanimity of approach around the country at this time.

The use of outpatient involuntary treatment is most appropriate:

- a. for individuals in the geriatric age group who are considered gravely disabled, eg, those who are significantly agitated and/or demented and who are inadvertently dangerous;
- b. for those successfully medicated patients whose chronic mental disorders are in partial or complete remission and who can be kept in remission with prescribed medications and structure; and
- c. for those patients whose illnesses have the natural history of rapid exacerbations and remissions.

North Carolina's experience with involuntary outpatient psychiatric care reveals that between 3-5% of all civil commitments have been on an outpatient basis since permitted by statute.¹³ The low occurrence of involuntary outpatient care stems from several factors:

- a. strict interpretation of the dangerousness criterion leads some judges and physicians to think of either required inpatient care or no need for care at all;
- b. physicians are reluctant to treat unwilling patients - especially on an outpatient basis;
- c. there is a belief that committed patients are more difficult to successfully treat than voluntary patients.

However, a failure rate for an involuntary outpatient treatment approach as measured by involuntary hospitalization within 90 days occurred in less than 1/3 of the cases as described in a 1982 study of the North Carolina experience.¹⁴

The opportunity for involuntary outpatient care in Kentucky needs to be elaborated further in statute and probably would be used often if both physicians and citizens realized the alternative. During fiscal years 1981, 1982 and 1983, the three Kentucky state hospitals involuntarily hospitalized 1,991, 1,989, and 1,633 patients respectively under KRS 202A.¹⁵ If only 5% of these patients could have opted for involuntary outpatient care, between 80 and 100 people per year would have been helped. If this option becomes available, courts, hospitals, and community mental health centers will need to work together about ongoing treatment plans. Families and primary care physicians can influence the course of treatment and personally encourage compliance. These options are consistent with the spirit of a therapeutic contract between the state and the patient, ie. if the individual will accept and participate in court ordered outpatient care, it's used; if there is no willingness or ability to cooperate then court ordered inpatient care results.

Involuntary psychiatric hospitalization can be a frightening, disruptive, stigmatizing experience for any individual. For those patients who are mentally ill and meet the criteria for civil commitment, involuntary outpatient care is a humane and enlightened alternative which needs to be tried.

References 1. Robitscher JB: *Psychiatry and the Law: Pursuit of Agreement* J.P. Lippincott: Philadelphia, 1966. pp 118-133. 2. Tancredi LR, Lieb J. and Slaby AE: *Legal Issues in Psychiatric Care*. Harper and Row: Hagerstown, Maryland, 1975. pp 2-49. 3. *Matter of Josiah Oakes*, 8 Law Re. 123 (Mass. 1845). 4. Overholser W: The Voluntary Admissions Law: Certain Legal and Psychiatric Aspects." *Am J Psychiat*. 3:475-490, 1924. 5. KRS 202A 6. Lessard V. Schmidt 349 F supp 1078 (1972) 7. KRS 202A.081 8. KRS 202A.23 9. American Psychiatric Association Guidelines for Legislation on the Psychiatric Hospitalization of Adults. June 1983, p 20. 10. Stromberg CD and Stone AA: "A Model State Law on Civil Commitment of the Mentally Ill." *Harvard Journal on Legislation* 20(2): Summer 1983. pp 275-396. 11. N.M. Stat. Ann. 43-1-11. 12. Iowa Code 229.13. 13. Miller RD and Fiddleman PB: "Outpatient Commitment: Treatment in the Least Restrictive Environment?" *Hospital and Community Psychiatry*. 35:147-151, 1984. 14. Hiday VA and Goodman RR: "The Least Restrictive Alternative to Involuntary Hospitalization. Outpatient Commitment: Its Use and Effectiveness." *Jnl of Psychiatry and Law*. Spring 1982. pp 81-96. 15. Personal communication. Ms. Sue Turner, Division for Institutional Care, Kentucky Bureau for Health Services.

From the University of Kentucky College of Medicine and American Psychiatric Association Task Force Involuntary Outpatient Psychiatric Care

Testicular Scanning in the Evaluation of the Acute Scrotum

C. MARK HOMRA, B.S., KERRY L. SHORT, M.D., LILLIE L. COFFEY, R.T., C.N.M.T.
JAMES I. HARTY, M.D. and MOHAMMAD AMIN, M.D.

One of the few urologic emergencies is torsion of the spermatic cord. Both torsion of the spermatic cord and acute epididymitis present as acute scrotal swelling and pain. The history, physical examination and laboratory data do not always distinguish between these two entities. A useful diagnostic tool for evaluation of the acute scrotum is the testicular scan, first reported by Nadel and associates in 1973. In our series, an overall accuracy rate of 97.1% was obtained with testicular scanning in patients with scrotal pain and tenderness.

Materials and Methods

From January 1977 to July 1983, 38 testicular scans were performed at the University of Louisville teaching hospitals. There were 34 scans available for review. The ages of the patients ranged from seven months to 25 years. The mean age was 15 years with 88% of these patients less than 17-years-old. Each chart was reviewed for the presenting history of the patient, the initial urine analysis, the results of testicular scan, and the intraoperative diagnosis or clinical diagnosis.

The technique of testicular scanning required the patient to be placed in the supine position with thighs separated. The penis was taped to the suprapubic region allowing for adequate exposure of the scrotum. A bolus of 10-20 mC of technetium (Tc 99m) sodium pertechnetate was then injected into a peripheral vein. Following injection, images were taken for approximately 30-40 seconds at five-second intervals. These images are referred to as the perfusion phase. Other images were taken as needed, usually no longer than

for 15 minutes. These subsequent images are referred to as the tissue phase.

Results

All testicular scans reviewed were technically satisfactory. The patients were divided into five groups (Table 1) based on the results of the perfusion scan. Decreased perfusion of the affected side was seen in 14 patients. Immediately following the scan, all patients underwent surgical exploration, and torsion of the spermatic cord was found in each patient.

In 14 patients, there was a diffuse unilateral increase in perfusion on scan. Of these 14 patients, 13 had a clinical diagnosis of epididymitis and were treated medically. The involved testicle had returned to normal in all cases on follow-up examination. One patient underwent manual detorsion of the testicle one day prior to the scan. He subsequently underwent bilateral orchiopexies.

Testicular scans in two patients showed an area of increased perfusion surrounding an area of central lucency. Upon surgical exploration, each patient was found to have a testicular abscess. Both of these patients required orchiectomy.

A localized area of increased perfusion along the superior medial aspect of a normally perfused testis was seen in two patients. Both of these patients underwent surgical exploration and were found to have torsion of the appendix testis.

Two patients had an enlarging testicular mass. Results of testicular scan in these patients showed normal perfusion. Both patients had testicular teratomas.

Discussion

Patients with epididymitis present with severe uni-

Journal of the Kentucky Medical Association

lateral pain and acute swelling of the scrotum. The patient may or may not have symptoms of urinary tract infection, ie, dysuria, frequency or urethral discharge. Treatment consists of bed rest, elevation of the scrotum with scrotal supporter, and appropriate antimicrobial therapy.

Torsion of the spermatic cord occurs spontaneously, commonly between the ages of eight and 16 years. There is rapid onset of unilateral scrotal pain and swelling. The scrotum is exquisitely tender, which makes physical examination difficult. Early diagnosis is essential since viability has been proved to be related to the length of time from the onset of symptoms to the relief of torsion.¹ If torsion of the spermatic cord is suspected, surgical exploration is indicated. Manual detorsion and bilateral testicular fixation are performed if the testicle is determined viable. If the testicle is not viable, orchiectomy should be done because a nonviable testicle may cause damage to the spermatogenic tissue of the unaffected testicle through an immunologic mechanism.²

The diagnosis of the acute scrotum is not easily made when based on history and physical examination alone. The two most common causes, epididymitis and torsion of the spermatic cord, can be distinguished with a high degree of accuracy using testicular scanning.³

The normal testicular scan shows uniform flow to both testes as indicated by equal isotope uptake. Epididymitis results in an increased uptake of the isotope. This is caused by increased blood flow to the hyperemic, inflamed tissue. Acute torsion of the spermatic cord causes decreased uptake of the isotope when compared to the normal contralateral testicle.

Evidence of old torsion and abscess have a similar pattern on scanning. An area of central lucency can be seen, which is surrounded by areas of increased perfusion, creating a halo-like effect.⁴ Torsion of the appendix testis produces a localized increase in perfusion of the superior medial portion of the affected testicle on testicular scanning. However, the reported characteristics of torsion of the appendix testis on testicular scan may be less accurate; therefore, suspected torsion of the appendix testis should be explored.

In those 14 patients with decreased perfusion on testicular scan, torsion was surgically proved in all 14 patients for a 100% accuracy rate. In 14 patients with increased perfusion on scan, 13 had presumed epididymitis, which improved with medical therapy representing a 93% accuracy rate. Our results using the testicular scan, compare favorably to previous studies

TABLE 1
Testicular Scan Results

Testicular Scan Findings	Number of Patients	Urinalysis	Final Diagnosis
Decreased perfusion	14	< 5 WBC	Torsion
Increased perfusion	13	≥ 10 WBC	Epididymitis
	1	< 5 WBC	Recent manual detorsion
Increased perfusion with central area of lucency	2	< 5 WBC	Testicular abscess
Increased perfusion localized to superior medial portion of testis	2	< 5 WBC	Torsion of appendix testis
Normal	2	< 5 WBC	Testicular teratoma

in which accuracy rates have ranged from 86-100%.⁴⁻⁷ The diagnosis of epididymitis versus torsion based on the finding of pyuria alone has not been proved reliable in previous studies.^{8,9} Even though urinalysis was helpful in the differential diagnosis of the acute scrotum, we do not recommend making the diagnosis in our patients based on the results of the urinalysis alone.

From our experience, we conclude that testicular scan provides a useful means of diagnosis in the acute scrotum. It is necessary to have a trained physician to interpret the results of these scans. With minimal experience, the urologist can easily interpret the scan. All scans showing decreased perfusion require immediate surgical exploration, thus increasing the early salvage rate for torsion of the spermatic cord.

The authors acknowledge the technical assistance of Susan K. Moneyponney, R.T., C.N.M.T. and Donna L. Hill, R.T., C.N.M.T. in preparing this manuscript.

References

1. Scott JH, Harty JJ, and Howerton LW: The management of testicular torsion in the acute pediatric scrotum. *J Urol* 129:558-560, 1983.
2. Harrison RG, Lewis-Jones DI, Moreno de Marval MJ, and Connolly RC: Mechanism of damage to the contralateral testis in rats with an ischaemic testis. *Lancet* 2:723-725, 1981.
3. Nadel NS, Gitter MH, Hahn LC, and Vernon AR: Preoperative diagnosis of testicular torsion. *Urology* 1:478-479, 1973.
4. Stage KH, Schoenvogel R, and Lewis S: Testicular scanning: clinical

TESTICULAR SCANNING—Homra *et al*

experience with 72 patients. *J Urol* 125:334-337, 1981. **5.** Abu-Sleiman R, Ho J, and Gregory JG: Scrotal scanning: present value and limits of interpretation. *Urology* 13:326-330, 1979. **6.** Boedecker RA, Sty JR, and Jona JZ: Testicular scanning as a diagnostic aid in evaluating scrotal pain. *J Pediatr* 94:760-762, 1979. **7.** Hahn LC, Nadel NS, Gitter MH, and Vernon AR: Testicular scanning: a new modality for the preoperative diagnosis of testicular torsion. *J Urol* 113:60-62, 1975. **8.** Cass AS, Cass BP, and Veeraraghavan K: Immediate exploration of the unilateral acute scrotum in young male subjects. *J Urol* 124:829-832, 1980. **9.** Kaplan GW, and King LR: Acute scrotal swelling in children. *J Urol* 104:219-223, 1970.

From the Department of Surgery, Division of Urology, University of Louisville School of Medicine, Louisville, Kentucky. Reprint requests to: Department of Surgery, Ambulatory Care Building, University of Louisville, Louisville, KY 40292.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

Motrin reduces inflammation, pain ...and price

New low price...major savings

The dramatic reduction in the price of *Motrin* Tablets means substantial savings from now on for your patients and for patients all across the country for whom *Motrin* Tablets are prescribed.

Motrin is priced lower than Clinoril, Feldene, or Naprosyn.

The price of *Motrin* Tablets to pharmacies has been reduced as much as 35%. Patients taking the average dosage should now pay less for therapy with *Motrin* Tablets than for almost any other nonsteroidal anti-inflammatory drug you prescribe...less, for example, than for Clinoril, Feldene, or Naprosyn. And, of course, all strengths of *Motrin* Tablets continue to be available by prescription only.

Please turn the page for a brief summary of prescribing information.

Motrin[®] 400 & 600 mg TABLETS
ibuprofen

Good medicine...good value

Motrin® Tablets (ibuprofen)

Contraindications: Anaphylactoid reactions have occurred in individuals hypersensitive to *Motrin* Tablets or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin, iodides, or other nonsteroidal anti-inflammatory agents

Warnings: Peptic ulceration and GI bleeding, sometimes severe, have been reported. Ulceration, perforation and bleeding may end fatally. An association has not been established. Use *Motrin* Tablets under close supervision in patients with a history of upper gastrointestinal tract disease, after consulting ADVERSE REACTIONS. In patients with active peptic ulcer and active rheumatoid arthritis, try nonulcerogenic drugs, such as gold. If *Motrin* Tablets are used, observe the patient closely for signs of ulcer perforation or GI bleeding

Chronic studies in rats and monkeys have shown mild renal toxicity with papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin* Tablets

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* Tablets and the patient should have an ophthalmologic examination, including central visual fields and color vision testing

Fluid retention and edema have been associated with *Motrin* Tablets; use with caution in patients with a history of cardiac decompensation or hypertension. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* Tablets safety in patients with chronic renal failure have not been done

Motrin Tablets can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and on anticoagulant therapy

Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, skin rash, weight gain, or edema

Patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* Tablets are added

The antipyretic, anti-inflammatory activity of *Motrin* Tablets may mask inflammation and fever

As with other nonsteroidal anti-inflammatory drugs, borderline elevations of liver tests may occur in up to 15% of patients. These abnormalities may progress, may remain essentially unchanged, or may be transient with continued therapy. Meaningful elevations of SGPT or SGOT (AST) occurred in controlled clinical trials in less than 1% of patients. Severe hepatic reactions, including jaundice and cases of fatal hepatitis, have been reported with ibuprofen as with other nonsteroidal anti-inflammatory drugs. If liver disease develops or if systemic manifestations occur (e.g. eosinophilia, rash, etc.), *Motrin* should be discontinued

Drug interactions: Aspirin, used concomitantly may decrease *Motrin* blood levels

Coumarin bleeding has been reported in patients taking *Motrin* and coumarin

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy or by nursing mothers

Adverse Reactions: The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal of which one or more occurred in 4% to 16% of the patients

Incidence Greater than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS)

Incidence less than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with pre-existing significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis

Incidence less than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmias (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis; **Renal:** Renal papillary necrosis

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under "Probable Causal Relationship (PCR)" if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under "Causal Relationship Unknown" if seven or more events have been reported but the criteria for PCR have not been met

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine so alkaline diuresis may be beneficial

Dosage and Administration: Rheumatoid arthritis and osteoarthritis: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Do not exceed 2400 mg per day. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary

Caution: Federal law prohibits dispensing without prescription.

MED B-7 S

Motrin is a registered trademark of The Upjohn Manufacturing Company



The Upjohn Company
Kalamazoo, Michigan 49001



U.S. Department of Transportation

**DRINKING & DRIVING
CAN KILL A FRIENDSHIP.**



A Public Service of This Publication.
© 1984 The Advertising Council, Inc.



“...Your financial security specialist is on call”

American Physicians Life believes a physician's financial security deserves specialized attention. That's why our products and services are designed with the doctor in mind. Our comprehensive portfolio of services, including life insurance, professional disability income coverage, qualified plans and tax-deferred annuities, is customized to meet your personal financial planning needs as well as those of your professional corporation.

Let American Physicians Life secure your financial planning program—that's our specialty!

Call today for the financial security specialist in your area.

**Endorsed by the
Kentucky Medical Association**



AMERICAN PHYSICIANS LIFE

Bates Drive, P.O. Box 281
Pickerington, Ohio 43147
Telephone (614) 864-3900

Toll-free in Ohio, 1-800-282-7515
Toll-free outside Ohio, 1-800-742-1275

Introducing



A Wholly Owned Subsidiary of the Jefferson County Medical Society

The “paperwork explosion” and skyrocketing records storage costs have proven the value of an alternative to in-house records storage for many forward thinking physicians. Now Medical Society Services proudly announces a new and unique records management system called

MEDICAL MICROGRAPHICS

- A production facility to provide the highest quality microfilming of your inactive patient records, in the format you choose at a reasonable cost— or bulk storage of paper records if you prefer.
- A professionally staffed archive at the Medical Society to maintain your records to your standards of confidentiality and care.
- Retrieval, research and copying services available at the Medical Society.
- Gratis record storage for first year following retirement.
- Simplicity. One phone call arranges pick-up of documents at your office and a complete records management service to your specifications.
- Economy. No investment in expensive equipment and at the same time, convert hidden storage costs to a tax deductible business expense.
- Security. Medical Micrographics is a division of Medical Society Services, a wholly owned subsidiary of the Jefferson County Medical Society.

For more information call Cheri K. McGuire, Assistant Executive Director, at (502) 589-2001, 101 W. Chestnut St., Louisville, Ky 40202.

EDITORIAL

Olympiad XXIII has come and gone, majestic and exciting, once again extolling the virtues of physical fitness.

Into the homes of millions in the United States and world wide, athletes of all size and shape, race and nationality, were seen to compete. My neighborhood streets were either deserted for television watching or packed with walkers, joggers, bicyclers, or combinations of such. We physicians are not immune from this infectious enthusiasm.

We must measure ourselves and our patients for abil-

ity to perform exercises. Stress tests of various types, careful family histories and drug toxicities are important considerations. Appropriate beginning exercises and moderate increase in intensity will be healthful and hopefully not dampen the interest.

To harness the spirit of athletic competition and convert it to encouraging all of us to better ourselves in a healthy way should be our goal.

Stephen Z. Smith, M.D.

Charles C. Smith, Jr., M.D. KMA President

On September 19, the 1984-85 President of KMA was sworn in and so begins another Associational year. The responsibility involved in the role of KMA President is vague to many members who are not involved with the daily operation of the Association. Requirements for President demand a dedication of time, perseverance and hard work. One demand that does not apply is that of a figurehead.

Charles C. Smith, Jr., M.D., is KMA President. He is well acquainted with the demands asked of officers in the Association having served as Chairman of the KMA Trends Committee, former Scientific Editor of the *Journal of KMA*, former President of the Jefferson County Medical Society and the Louisville Society of Internists. Doctor Smith has clearly defined the issues he plans to tackle this year. "We have to address the generic problem of hospitals getting into the practice of medicine. This is exemplified by the setting up of medical practices sponsored completely by hospitals, the building of urgent care centers and eventually the establishment of clinics owned by hospitals.

"Physician sensitivity is the next item we need to address. We must be responsive to our patients emotionally, be available when they need us and most of all treat them with concern. We have lost some of this personal contact with the advent of third party payors. It is time to deal directly with the patient on all levels. I would also like to emphasize the development of home health care. Technology is going to make this more feasible with the development of intravenous therapy, respiratory therapy and the monitoring of patients at home.

"Finally, while I'm President I would like to see KMA develop a program for Kentucky schools designed to fight drug and alcohol problems by focusing on building students' self-esteem."

Recognition of the issues is the first hurdle to face in dealing with the issues. This is one of the basic functions of the Trends Committee. "The formation of the KMA Trends Committee was an effort to seek intelligence about the developments in medicine on behalf of the membership and to formulate ideas about the resulting actions of the Association. What we want to avoid is just simply reacting to what happens," explains Doctor Smith.



PROFILE

As Chairman of the Trends Committee, Doctor Smith admits to becoming more aware of the evolution of medicine. Competition, marketing, diagnostic related groups—all have become buzz words in organized medicine. The Trends Committee's task is to quantify these words. "It is generally true that physicians have to market themselves by their performances. The system works with a physician setting up a practice and through excellence in his performance he sells himself. This is marketing of medical care in its finest sense. What the Association has to do is be the watchdog to be sure that marketing by third parties does not interfere with this performance." Doctor Smith goes on to explain. "The Association has already made an effort in distribution of a guide earlier this year of what it considers fair advertising practices in medicine. We want every patient to get a competent, caring physician and to not have this care directed through corporate boardrooms from profit and loss sheets. KMA has to also market its services to its members. We know that today's members want the help of a computer company, an insurance company and a financial institution that are geared to their needs. We have met this demand."

Membership recruitment is another area Doctor Smith will focus his attention on this year, particularly the membership recruitment of women physicians. Each year more women enter medical school but statistics indicate that proportionally fewer female physicians become members of organized medicine than male physicians. Doctor Smith elaborates, "We need to encourage women to become KMA members, but we do have to discuss their particular problems and recognize that they may have different demands placed upon their time."

Doctor Smith, an internist, grew up in Fonde, KY, a "coal camp" as he affectionately describes it. He decided to become a physician he says, "Because I idolized the family doctor."

Doctor Smith graduated from the University of Louisville School of Medicine in 1955. He and his wife, Rosemary, have four children. Their oldest, Charles III, is a resident in Internal medicine at Charity Hospital in New Orleans. Their next son, Mark, is in his second year of medical school at U of L. Their daughter, Stephanie, recently graduated from the University of Kentucky and is applying to medical school. Cynthia, their youngest, is in the eighth grade at Kammerer Middle School in Louisville.



As a result of sending four children through public schools, the Smith's have become avid supporters of the Parent Teachers Association (PTA). This is Mrs. Smith's 25th year as an active member. Doctor and Mrs. Smith are also members of their church choir and this summer they visited Britain as representatives of the American Methodist Bicentennial Organization. The eight-day tour took them to Wesley Chapel in London where they sang for a Sunday Church Service.

While in London, Doctor Smith visited the British Medical Association (BMA) and he explains its function. "The BMA functions primarily as a trade union and mainly negotiates doctors' wages. They have no scientific function and deal only with matters between physicians and government. Britain really has a twin medical system. If you really need care you can get it outside of the system if you can afford it which is what a lot of companies provide as medical insurance."

Doctor Smith has been involved in developing a KMA health cost slide presentation designed for businesses and consumer groups. The response to this has been favorable and has given Doctor Smith the opportunity to display his talent for diplomacy. Dissatisfaction with organized medicine has been a constant topic in the press and in the medical community. Doctor Smith offers a refreshing change to this mood. He projects a

PROFILE



realistic optimism about the future of medicine's role. "I am optimistic about the future. We have more and more technology to use with better results each year. We do have more physicians than in the past, but with people living longer more physicians are going to be needed. We are also going to have to help guide society in the care of an aging population, not only physically but ethically."

The immediate future of KMA promises to be a welcome challenge for Doctor Smith. "I see my role as President as one of captain of the ship in preserving the care of the patient. We must preserve the tenants that we have been taught and make it understood that the human body does not always compute. It is an exciting time. Our best days are ahead as long as we are sensitive and diligent in the care of our patients. As a result, the patient will be better off, and that is what it is all about."

Donna M. Young

*Does your office
need a "physical"?*

KMCO can diagnose
your office needs
and prescribe the
proper remedy.



A subsidiary of KMA Physicians Services, Inc.

**KENTUCKY MEDICAL MANAGEMENT &
COMPUTER OPERATIONS**

recommended by Kentucky physicians as the
treatment of choice for reliable and economical
advice and support in all phases of office
management.

Our package of services includes consultation and
evaluation of office automation needs, and if a com-
puter is recommended, we have the staff expertise to
not only make sure the right computer is installed,
but will be there to insure its efficient operation. Your
computer package will be specially designed to
accomplish what you need—now, next month and
next year.



Contact:

Marty Paslick or Joe Witherington
3532 Ephraim McDowell Drive, Louisville, KY 40205
Toll Free 1-800-292-1675 or in Louisville 451-2095

Forty-Five Years Young

We have been a sponsored group insurer since 1939. You will soon receive a brochure (pictured) showing you the improved coverages now offered.

Read it and compare coverages.

**UP TO \$6,000
A MONTH AT
GROUP RATES**

**TAILOR-MADE
TO YOUR NEEDS -
3 PLANS + OPTIONAL
WAITING PERIODS**

**\$72,000 A YEAR
TAX FREE WHEN
YOU PAY YOUR
PREMIUM PERSONALLY**

**PRIVATE FLYING COVERED
MAY PURCHASE UP TO
\$100,000 AD&D @ 70¢
PER \$1,000**

**RENEWAL
GUARANTEE**

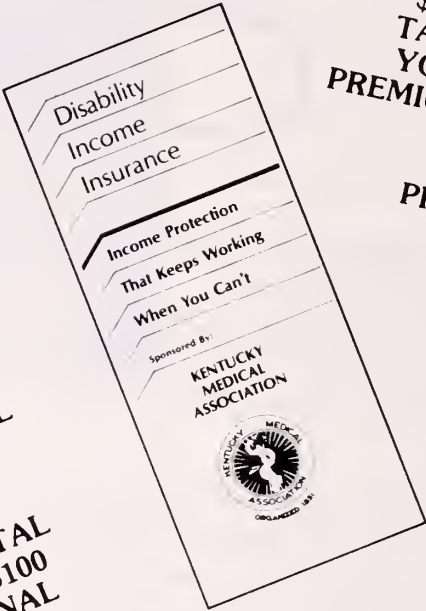
**SAME DAY CLAIM SERVICE
FROM OUR OFFICE**

**PREGNANCY COVERED
IN BASIC POLICY**

**COST OF LIVING
ADJUSTMENT**

OPTIONAL RESIDUAL

**DAILY IN-HOSPITAL
BENEFITS TO \$100
A DAY OPTIONAL**



A.P.L.
A.P. LEE AGENCY, INC.

631 Lincoln Federal Bldg.
Fourth Avenue
Louisville, Kentucky 40202

Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

*** WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

In Hypertension... When You Need to Conserve K^+

Remember the Unique Red and White Capsule: Your Assurance of SK&F Quality

Serum K^+ and BUN should be checked periodically. Use 'Dyazide' as directed.



Potassium-Sparing **DYAZIDE®**

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Over 17 Years of Confidence

The unique
red and white
Dyazide® capsule:
Your assurance of
SK&F quality.



a product of
SK&F CO.
Carolina, P.R. 00630



Taking The Bite Out Of The Bear.

Some Wall Street investors spend a lot of time looking over their shoulder. Even during bull markets, when things are surging ahead, they worry about the bear showing up to take a bite out of them.

But *you* can get the best of the bull and take the bite out of the bear, if you join the Payroll Savings Plan and buy U.S. Savings Bonds every payday.

Bonds have a variable interest rate, so when the bull is leading the Wall Street parade, you

get to share in those higher returns. And where others may quake at the coming of the bear, you're protected by a guaranteed minimum.

Bonds let you relax and enjoy the bull markets, knowing that if the bear does make an appearance, for *you*, his growl will be worse than his bite.

**Take
stock
in America.**



A Public Service of This Publication & The Advertising Council

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA



**FOR
PROFESSIONAL PROTECTION
EXCLUSIVELY**

YOUR FIRST STEP TO FIRST QUALITY PROTECTION

CONTACT FIELD REPRESENTATIVES

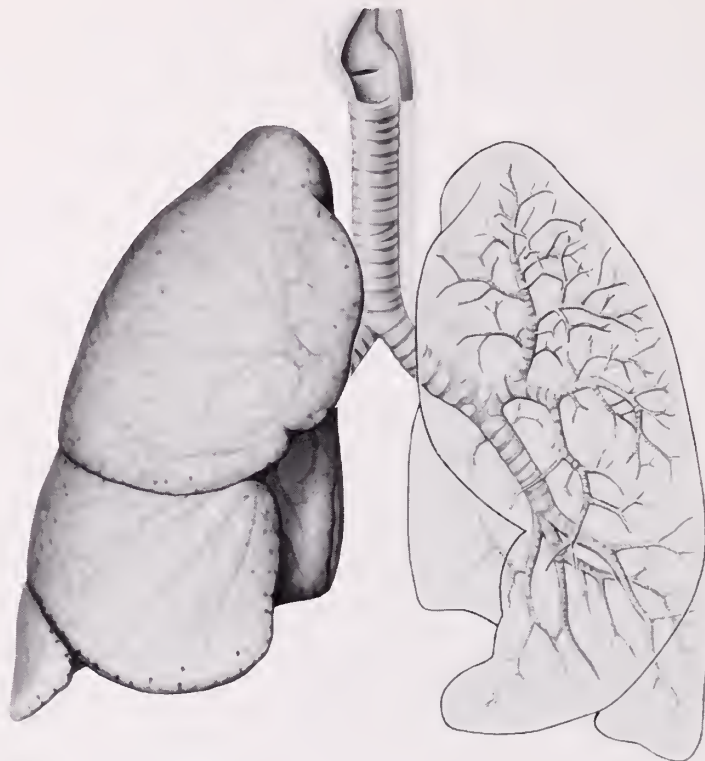
Louisville Office

DONALD G. GREENO
400 Sherburn Lane, Suite 104,
Louisville, Kentucky 40207
(502) 895-5501

Lexington Office

CHARLES E. FOREE
Suite 103B, 152 East Reynolds Road
Lexington, Kentucky 40503
(606) 272-9124

Consider the causative organisms...



Cecilor®
cefactor

250-mg Pulvules® t.i.d.

**offers effectiveness against
the major causes of bacterial bronchitis**

H. influenzae*, *H. influenzae*, *S. pneumoniae*, *S. pyogenes
(ampicillin-susceptible) (ampicillin-resistant)

Brief Summary Consult the package literature for prescribing information

Indications and Usage Cecilor® (cefactor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cecilor.

Contraindication Cecilor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Cecilor, should be administered cautiously to any patient who has demonstrated some form of allergy particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad spectrum antibiotics (including macrolides, semisynthetic penicillins and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, manage-

ment should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions **General Precautions**—If an allergic reaction to Cecilor® (cefactor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Cecilor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross matching procedures when antioglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Cecilor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made, because safe dosage may be lower than that usually recommended.

As a result of administration of Cecilor, a false positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistix® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy **Pregnancy Category B**—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum

human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Cecilor® (cefactor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Cecilor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Cecilor is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions Adverse effects considered related to therapy with Cecilor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Cecilor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have

occurred in patients with a history of penicillin allergy. Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count predominantly lymphocytosis occurring in infants and young children (1 in 40).

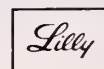
Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

Note Cecilor® (cefactor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

© 1984, ELI LILLY AND COMPANY



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630.

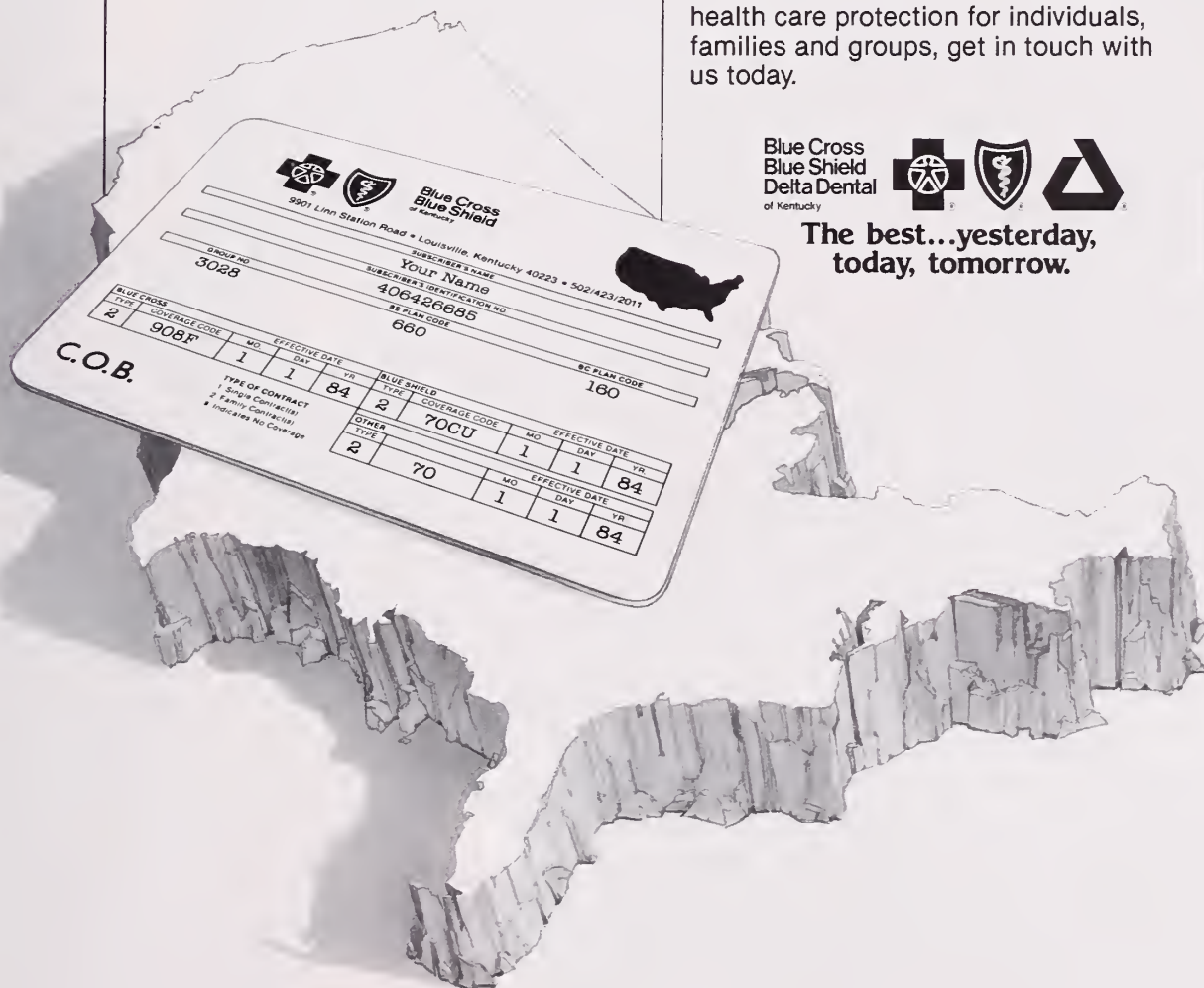
401641

We've got you covered.

No matter where you travel in the U.S., when you carry the Blue Cross and Blue Shield membership card, you carry assurance and peace of mind. Assurance that your card will be accepted from Maine to New Mexico, from Miami to

Seattle. Peace of mind that you're covered by the leader in health care protection. Can you afford to carry anything less than the best? Blue Cross and Blue Shield of Kentucky ... with you wherever you travel.

For more details about the leader in health care protection for individuals, families and groups, get in touch with us today.



Blue Cross
Blue Shield
Delta Dental
of Kentucky



The best...yesterday,
today, tomorrow.

* Reg. Marks Blue Cross and Blue Shield Assn.

* Reg. Mark Delta Dental Plans Assn.

**New study reveals
no interaction between**



Ativan[®] (lorazepam) and Darvon[®] (propoxyphene HCl) ©

In a study evaluating the influence of propoxyphene coadministration on the pharmacokinetics of the oxidatively metabolized benzodiazepines Xanax[®] (alprazolam) © and Valium[®] (diazepam) ©, and a benzodiazepine metabolized by conjugation, Ativan[®] (lorazepam), the following results were reported:

with Xanax, propoxyphene caused a large and highly significant prolongation of half-life and impairment of total metabolic clearance.¹

in the case of Valium, propoxyphene produced a small but not statistically significant impairment of clearance.¹

propoxyphene had no apparent effect on the distribution, half-life or clearance of Ativan.¹

In this randomized crossover study, eight healthy male and female volunteers received single oral doses of alprazolam (1 mg), six received single IV doses of diazepam (10 mg), and five received single IV doses of lorazepam (2 mg), once in a drug-free control state and again during coadministration of pro-

poxyphene (65 mg q6h). Consistent with previous findings, this study evidences that Ativan does not interact with drugs that undergo oxidative metabolism.^{2,5} In contrast to most other benzodiazepines, Ativan does not compete for the cytochrome P-450 enzyme system.

The clinical implications of the pharmacokinetic interaction, or non-interaction, of propoxyphene with benzodiazepines are not established by this study. Even without a pharmacokinetic interaction, propoxyphene and benzodiazepines share central depressant properties and therefore should be coadministered with suitable caution. A concurrent pharmacokinetic interaction indicates a need for even further caution. Coadministration of propoxyphene and alprazolam, for example, would produce not only the expected pharmacodynamic interaction, but also whatever additional central depressant effect would be produced by the elevated steady-state plasma concentrations of alprazolam due to its impaired clearance.

Caution should also be observed when propoxyphene is prescribed for patients who use alcohol to excess.

References

1. Abernethy DR, Greenblatt DJ, Shader RI: Data on file, Wyeth Laboratories.
2. Patwardhan RV, Yarbrough GW, Desmond PV, et al: Gastroenterology 79:912-916, 1980.
3. Abernethy DR, Greenblatt DJ, Divoll M, et al: Psychopharmacology 80:275-278, 1983.
4. Abernethy DR, Greenblatt DJ, Divoll M, et al: N Engl J Med 306:791-792, 1982.
5. Ochs HR, Greenblatt DJ, Abernethy DR: Data on file, Wyeth Laboratories.

Ativan[®] for (lorazepam) © Anxiety



The appearance of these tablets is a registered trademark of Wyeth Laboratories

DISTINCTIVE DESIGN 0.5, 1.0 and 2.0 mg

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown, but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper GI disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection USP. Usefulness of dialysis has not been determined.

Ativan®
for (lorazepam)
Anxiety

DOSAGE: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

HOW SUPPLIED: 0.5, 1.0 and 2.0mg tablets.

Wyeth Laboratories
Philadelphia, PA 19101



**General Leasing
Company of Kentucky**

Professional Transportation Management

**We administer your
physician's lease plan.**

**We lease all makes —
everywhere.**

**GENERAL
LEASING**

121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383

ASSOCIATION

KMA Wraps Up 134th Annual Meeting

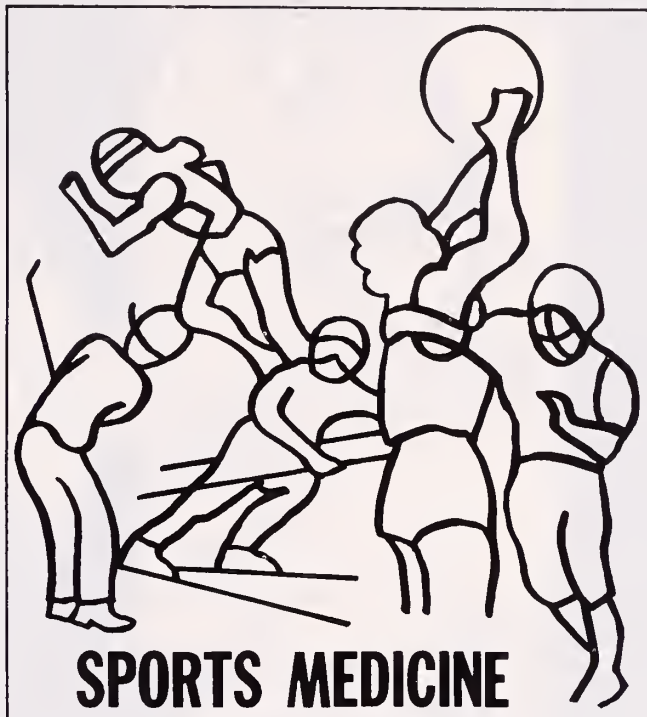
The 134th KMA Annual Meeting concluded September 20th, and wrapped up another active Associational year for the KMA. Close to 2,000 registered and attended the two House of Delegates meetings, the three days of scientific sessions and specialty group meetings held at the Hyatt Regency/Lexington Convention Center.

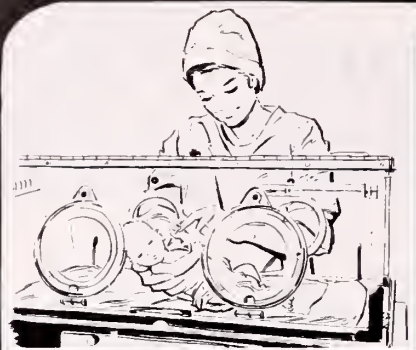
The KMA House of Delegates adjourned on September 19, 1984, after considering 29 Resolutions and over 50 Reports. The highly publicized Health Care Access Hotline Referral proposal was approved. Over 100 physicians participated in the special Reference Committee Meeting held on Monday, September 17. The program is expected to be implemented by January 1, 1985.

Charles C. Smith, Jr., M.D., Louisville Internist, was sworn in as the 134th President of the Association. Wally O Montgomery, M.D., a Paducah Surgeon, was elected by the House of Delegates to the office of President-Elect. Richard F. Hench, M.D., Lexington Internist, was chosen as Vice President, and S. Randolph Scheen, M.D., of Louisville, was re-elected as Secretary-Treasurer. Harold Haller, M.D., of Louisville and Russell L. Travis, M.D., of Lexington were named to the AMA Delegates slots. Kenneth P. Crawford, M.D., of Louisville and Carl Cooper, Jr., M.D., of Bedford, filled the Alternate Delegate positions.

The KMA Board of Trustees named Nelson B. Rue, M.D., Chairman of the Board. Doctor Rue practices General Surgery in Bowling Green. Henry R. "Hank" Bell, M.D., Elkton Family Physician, was elected Vice Chairman. Newly elected KMA Trustees include William B. Monnig, M.D., of Covington; Preston P. Nunnelley, M.D., of Lexington; and Emanuel H. Rader, M.D., of Pineville.

Complete proceedings of the KMA House of Delegates will be published in the December Journal of KMA.





**as one physician
to another. . .**



**"Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?"**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company · P.O. Box 35880 Louisville, Ky. 40232
TOLL FREE 1-800-292-1858 · Louisville Area 459-3400

There's never been a better match.

When you bring two hospitals together who complement each other as well as Baptist Hospital East and Highlands Baptist, everybody benefits. It's because the two hospitals were carefully developed to be a system.

They share resources and technology. And they share one of the finest medical staffs in the region. Together, the two hospitals offer a broader

range of services than any other hospital in the area. Their services complement rather than duplicate, so they can meet a much broader range of needs.

And because the hospitals operate as a system, health care costs are lower — for everybody.

Highlands Baptist Hospital and Baptist Hospital East: what could be a better match?



BAPTIST • HOSPITALS • INC.

A growing tradition

Diabetes Education for Physicians in Kentucky

In the coming months we will see two major programs for physician education to care for people with diabetes in Kentucky. In a coordinated effort, the Kentucky Affiliate of the American Diabetes Association and the Kentucky Diabetes Control Program will bring speakers of national renown to physicians in Kentucky.

Throughout the nation, the American Diabetes Association is sponsoring a clinical education program for Type II (non-insulin-dependent) diabetes. This is directed primarily to internists, general and family practitioners—the primary care physicians who are responsible for the care of almost all persons with diabetes. This program was launched in April, 1984, by a unique satellite-linked teleconference symposium in 24 cities. Now state-wide meetings are planned on the same theme.

According to a 1980 survey by the National Diabetes Data Group, one in every 40 Americans has been diagnosed as having diabetes and an equal number remain undiagnosed. Thus, one in every 20 is affected by diabetes. The prevalence of diabetes in certain parts of Kentucky may even be greater than these striking numbers indicate. Type II diabetes accounts for approximately 90% of the total diabetic population.

Dr. Stefan Fajans from the University of Michigan and Dr. Charles Clark from Indiana University will be feature speakers at the SYMPOSIUM ON TYPE II DIABETES to be held, Oct 26, in Frankfort. Speakers of national renown from our Kentucky medical schools will also participate.

At this meeting, a "handout" of textbook quality will be provided. Compiled by nine research and clinical specialists in diabetes, *THE PHYSICIAN'S GUIDE TO TYPE II DIABETES* covers the latest information on pathogenesis, diagnosis, and treatment in a concise, clinically practical way.

The state-wide SYMPOSIUM in October will be com-

plemented by at least 15 smaller meetings across the state. These will be planned by the Kentucky Diabetes Control Program in cooperation with the ADA. The Control Program, funded by the Center for Disease Control, is administered by the Kentucky Department of Health and Human Services.

Throughout Kentucky, teams of specially trained nurses and dietitians have been concentrating on education for patients, and non-physician health care providers. This fall, their focus will turn to physician education as they help to plan these local meetings. They will ask local medical societies and hospital staff associations to help in this effort.

These meetings will also be distinguished by a valuable resource booklet, "The Prevention and Treatment of Five Complications of Diabetes." Guidelines for management of the day-to-day problems encountered in the care of diabetes will be presented. The rationale for optimal glucose control will be discussed, as well as means to achieve it. Ways to extend the physician's effectiveness by directing the efforts of other health professionals in the care of diabetes will be taught. This should be a valuable experience for the physician wishing to improve his diabetes care skills.

Perhaps never before in Kentucky has there been such an extensive effort for physician education in the field of diabetes. The coordination of the two state medical schools, the state Department of Health and Human Services, and the American Diabetes Association Kentucky Affiliate, Inc. is a model of cooperation for continuing medical education. With support from local medical societies, the Kentucky Medical Association and physicians across Kentucky, this effort can be fruitful for our patients with this disease.

Submitted by Russell Hoffman, M.D.

The Kentucky Diabetes Control Program

In March, 1978, a Senate Joint Resolution passed by the Kentucky General Assembly created the Kentucky Diabetes Commission. This Commission, composed of a cross section of Kentucky consumers and health care providers with an interest in diabetes, was charged with three tasks: 1) Study the problem of diabetes in Kentucky to better define the social and economic costs of this chronic illness, 2) Determine the extent of available resources, and 3) Develop a plan of action to impact upon the identified problems.

The investigations conducted by the Diabetes Commission showed conclusively that the costs of diabetes to the Commonwealth both socially and economically were far more than what had been previously thought. The Commission showed that the prevalence of diabetes was higher than what had been thought and that the resources available for patient education were not sufficient to handle the problem. In addition the Commission showed a need for professional education.

As a result of the findings of the Kentucky Diabetes Commission, a plan was developed which called for a coordinated approach to the control of diabetes at the community level. The plan called for significant involvement of three agencies: 1) the Kentucky Department for Health Services, 2) the local health departments, and 3) two core resource centers. The state health agency was to provide the overall planning, coordination, and evaluation to the program. The local health departments would actually implement the majority of the interventions through a locally hired and implemented diabetes team consisting of a nurse and a nutritionist. The core resource centers were to provide the training of the local teams and provide consultation to the program. In addition, the core resource centers would provide model clinical services to people with diabetes.

The program began implementation in July, 1980. The first four teams began their training in November, 1980. The Program currently provides consultation to local programs located in 18 District Health Departments across the state. These teams provide service to all of Kentucky's 120 counties.

The most important activity of the teams is professional education. This activity is based on the assumption that the most effective use of the teams is to provide

technical assistance, consultation, and training to health professionals rather than to deal directly with the patient with diabetes. This serves two purposes—first, this does not disrupt the already established patient/professional relationship and secondly, far more diabetics will benefit from time spent training professionals. The teams provide training to professionals on the most current therapies and control methods as well as in education techniques.

Under certain conditions, the teams are also involved in the direct provision of community based group diabetes education. A short term goal of the Diabetes Control Program is to establish quality group classes which would be available at least twice a year within 30 minutes driving time of all Kentuckians. The most efficient method is to, when possible, identify a local resource that is willing to conduct the classes and then provide the training, materials, and curriculum to these professionals. However, when no local resources are available, the teams do develop and conduct group classes.

The Kentucky Diabetes Control Program represents a new and somewhat unique approach to chronic disease control through public health involvement. The concepts being utilized by the program are of course not new, but the combined implementation in an effort to control a chronic disease is unique to public health.

In line with the program's goal of providing professional education, is a series of workshops for physicians on the prevention and treatment of five complications of diabetes. The workshops, which will be co-sponsored by the American Diabetes Association Kentucky Affiliate will be taught by a combination of diabetologists from across the state and local practitioners with an interest in diabetes. The curriculum will be based on a new publication of the National Diabetes Advisory Board entitled "The Prevention and Treatment of Five Complications of Diabetes: A Guide For Primary Care Physicians." The complications to be covered in the workshops are: diabetes in pregnancy, diabetic ketoacidosis, foot care, diabetic nephropathy, and diabetic retinopathy. Physicians who attend the workshops will be eligible for continuing education credits from both the Kentucky Medical Association and through the Family Practice Association.

Another important education event occurring for physicians in Kentucky is a statewide seminar on the diagnosis and treatment of Non-Insulin Dependant Diabetes Mellitus (NIDDM). This workshop is an extension of a group of workshops sponsored by the American Diabetes Association and held in 21 cities across the U.S. via closed circuit television in April. The workshop will be held in Frankfort at the Capital Plaza Hotel on Oct. 26, 1984.

Submitted by David E. Bybee, M.D.

DIABETES

Five Complications

Watch future issues of the
KMA Journal for details on
autumn seminars sponsored by
these professional organizations:



American
Diabetes
Association
Kentucky Affiliate, Inc.



1985 CME Cruise/Conferences on Legal-Medical Issues

Accredited for 20-24 CME CAT. 1 Credits by The Suffolk Academy of Medicine
Approved for 20-24 AAFP Prescribed Credits

The programs listed below were scheduled prior to 12/31/80 and conform to IRS tax deductibility requirements under Sec. 602 of the Tax Reform Act-P.L. 94-445, effective 1/1/77, with the exception of the Hawaiian Conferences, which conform to the requirements of P.L. 97-424.

24 CME CREDITS

- ☐ *Jan. 9-19 (from Ft. Lauderdale, FL)
10 day Caribbean - TSS FAIRWIND
- ☐ *Mar. 30-Apr. 10 (from Los Angeles, CA)
11 day Mexican Riviera - TSS FAIRSKY
- ☐ *July 8-20 (from San Francisco, CA)
12 day Alaska/Canada - TSS FAIRSKY

24 CME CREDITS

- ☐ *July 24-Aug. 3 (from Ft. Lauderdale, FL)
10 day Caribbean - TSS FAIRWIND
- ☐ August 9-23 (from Genoa, Italy)
14 day Mediterranean - MS COLUMBUS

20 CME CREDITS

- ☐ Monthly 7 day cruise/seminars from Honolulu, HI on a variety of medical topics.
SS CONSTITUTION, SS INDEPENDENCE

*FLY ROUND TRIP FREE

Please send Color Brochures and additional information on the conferences checked above.
PLEASE PRINT

EXCELLENT GROUP FARES

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

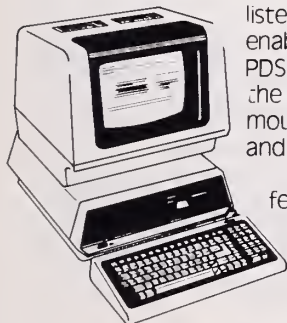
Sponsored by International Conferences (516) 549-0869
189 Lodge Avenue, Huntington Station, NY 11746

WE'RE LISTENING



Combus is concerned about efficient office management.

PDS, the best medical office management system available today! How can we make such a statement? That's simple! We've listened to what you had to say. Doing so has enabled The Combus Group to develop the PDS System, the one system that has bridged the gap between the physician and his mounds of daily paper work. We're Listening, and there isn't a better way to learn.

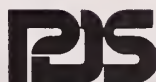


Take a look at just a few of the automated features found on our PDS software and we're sure you'll agree, PDS is the best office management system on the market.

- Medicaid/Medicare Forms
- Accounts Receivables
- Accounts Receivable Aging
- Third Party Billings
- Statements
- Multi-office, Multi-physician
- Patient Charting Capability
- Uses standard CPT & ICD Codes
- History Taking System
- Appointment Scheduling
- Complete practice analysis

Combus provides complete **on-going** support; after the sale we **continue** to Listen!

The PDS System saves time, saves space, increases office productivity and is simple to operate. We can make your practice more efficient, productive, and profitable. Call The Combus Group today and Listen.



PHYSICIAN DATA SYSTEMS

A Division of the **COMBUS GROUP** Incorporated

821 Corporate Drive ■ Suite 200 ■ Lexington, Kentucky 40503 ■ 606/223-5754

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

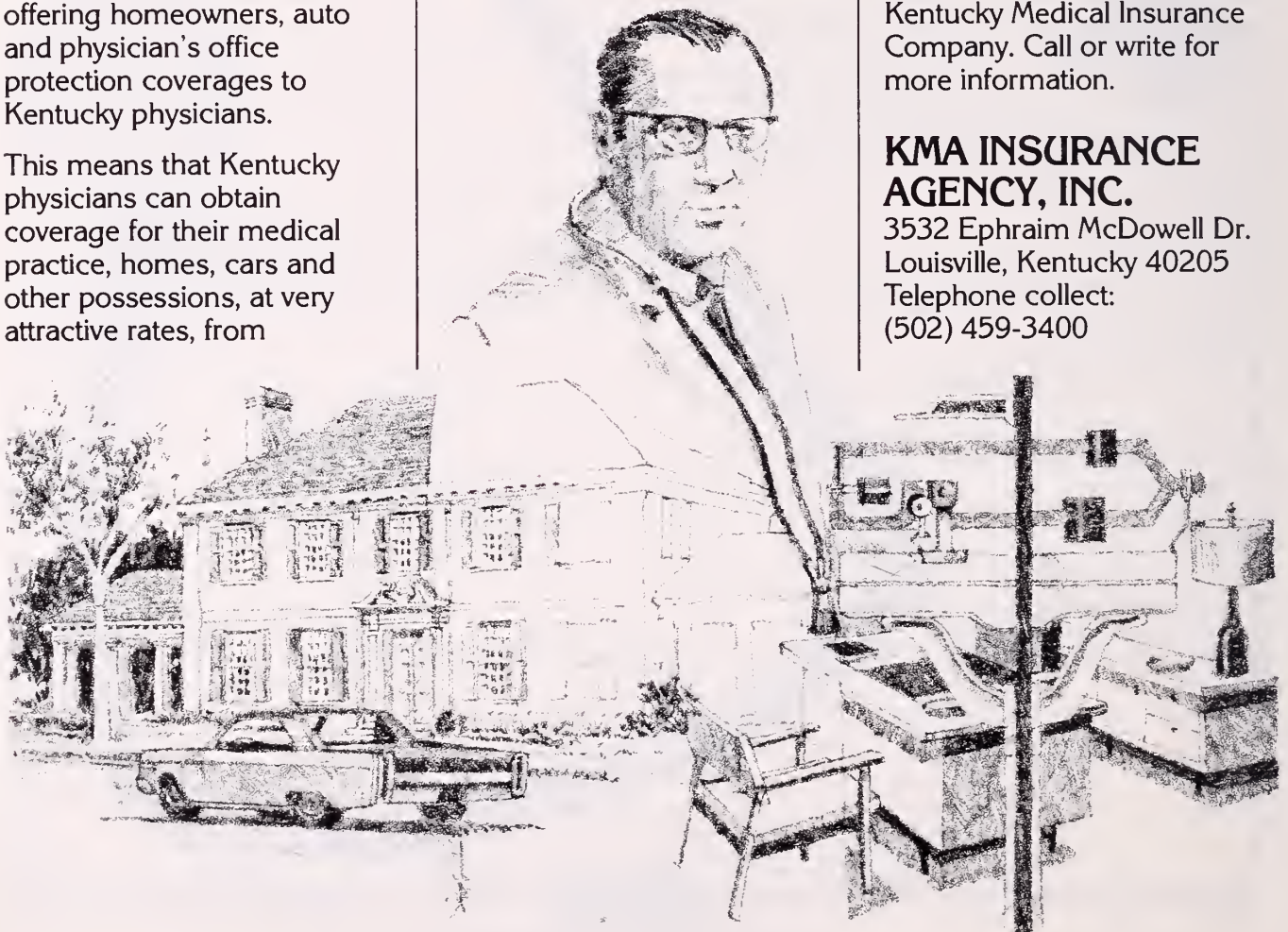
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



A special practice for specialists

If you're a surgeon or OB/GYN or other medical specialist, the Air Force may have a special practice for you.

What makes it special? You'll enjoy an excellent pay and benefits package. Your regular working hours will allow you to spend more time with your family. You'll receive 30 days of vacation with pay each year. And you will work with modern equipment and some of the most highly trained professionals in the world, serving your country and your patients. Now that's special!

**Find out just how special
your practice can be.**

Contact:

TSGT PETE HONAKER
701 W. Muhammed Ali Blvd.
Louisville, KY 40203
Call 502-582-5727 Collect

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month two months preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

KENTUCKY LICENSED OB-GYN Needed as Locum Tenens. Permanent Position Negotiable. Submit Resume, References and Schedules to: Physicians, Inc., P.O. Box 960, Ironton, Ohio, 45638.

FAMILY PRACTICE-BOARD certified or board eligible Family Practitioner needed to join an established group. The group currently consists of a board certified general surgeon and two board certified family physicians. The office facility is a modern, spacious, well equipped and fully staffed practice setting. There is an adjacent 43 bed acute care hospital including 4-CCU beds and an attached 38 bed SNF. The practice setting is in the southern bluegrass region in Lincoln County. For further information write Fort Logan Clinic, P.S.C., 126 Portman Avenue, Stanford, Kentucky, 40484 or call Charles E. Crase, M.D. at 606-365-9181 office or 606-365-9707 home.

PHYSICIAN OPPORTUNITIES



A number of attractive openings are currently available for qualified physicians in

**FAMILY PRACTICE
ACUTE CARE/EMERGENCY MEDICINE
INTERNAL MEDICINE**

We are a multi-specialty group practice with approximately 100 physicians. We have opportunities in the above areas in both our main clinic and a number of satellite clinics. Essentially, all clinical specialties and subspecialties are represented. Our main clinic is located adjacent to a modern 400 bed hospital.

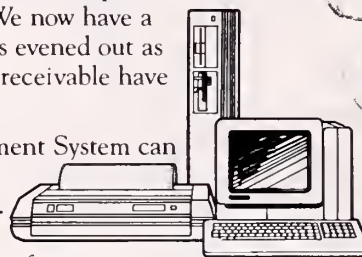
For further information contact:

Robert Slaton, Trover Clinic
Clinic Drive
Madisonville, Kentucky 42431
(502) 825-7465

"We now have a concise profile of practice productivity."

"We have eight terminals in constant use. I'm happy to report that we've had no downtime problems and Reynolds + Reynolds has always been extremely responsive to our needs. Since our Reynolds + Reynolds Medical Practice Management System was installed we've learned vital facts about our practice—number of visits, procedures performed, physician activity. We now have a concise profile of our practice productivity, and cash flow has evened out as a result of the new billing system. I'd estimate that accounts receivable have decreased by 15% or more."

For more information on how the Medical Practice Management System can improve your practice too, complete the coupon below.



Dr. Meyerhoffer, M.D.
Pediatrics, Cleveland, OH.

PROFESSIONAL ACCOUNTING SYSTEMS

9212 REIGATE, LOUISVILLE, KENTUCKY 40222
(502) 426-5333

an authorized agent for
Reynolds+Reynolds

____ Please send your Medical Practice Management System Brochure.
____ Please have an authorized agent contact me.

PHYSICIAN: _____ PRACTICE NAME: _____

NO. OF PHYSICIANS: _____ SPECIALTY: _____ OFFICE MANAGER: _____

ADDRESS _____ CITY _____

STATE _____ ZIP _____ TELEPHONE _____

© 1984 The Reynolds and Reynolds Company. All rights reserved.

We're Hardware. We're Software. We're Everywhere.

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵ ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY CONFIRMED BY EXPERIENCE **DALMANE**® flurazepam HCl/Roche

THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights²⁻⁴
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE®
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE®
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GI complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]
flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES



See preceding page for references and summary of product information.
Copyright © 1984 by Roche Products Inc. All rights reserved.

STACKS

JOURNAL OF THE

Kentucky Medical

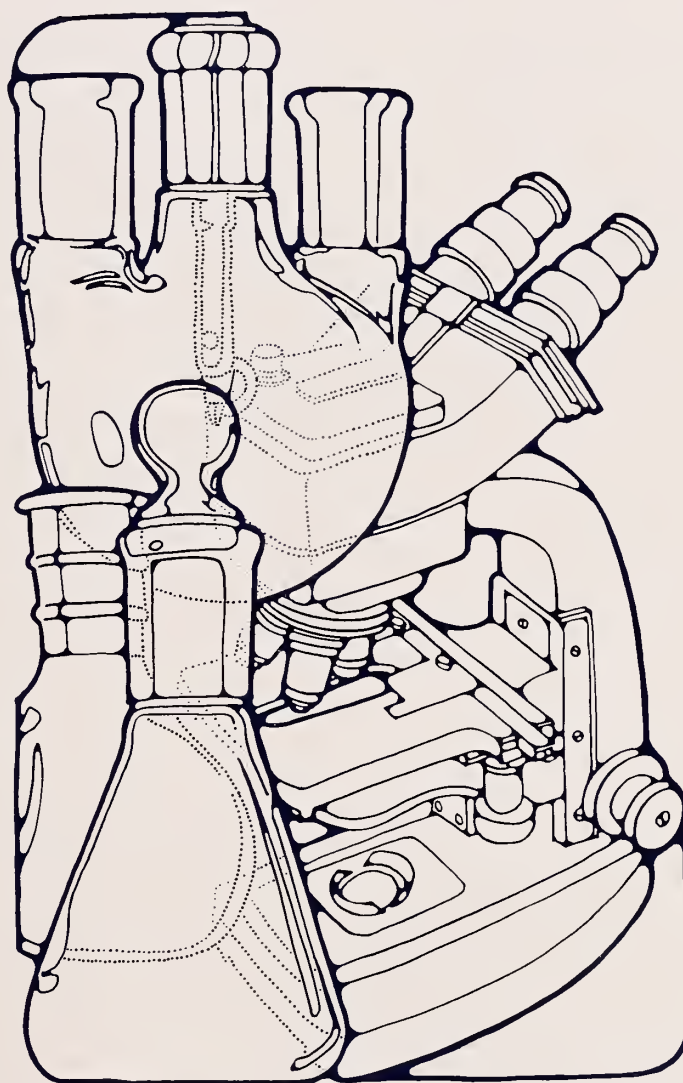
ASSOCIATION

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

NOV 29 1984

M. D. S.

SUP
Library of
College of Phys. of Phil.
19 South 22nd St.
Philadelphia, PA 19103



Trends in Medicine

Page 595

**New study reveals
no interaction between**



Ativan[®] (lorazepam) and Darvon[®] (propoxyphene HCl) ^{IV}

In a study evaluating the influence of propoxyphene coadministration on the pharmacokinetics of the oxidatively metabolized benzodiazepines Xanax[®] (alprazolam) ^{IV} and Valium[®] (diazepam) ^{IV}, and a benzodiazepine metabolized by conjugation, Ativan[®] (lorazepam), the following results were reported:

with Xanax, propoxyphene caused a large and highly significant prolongation of half-life and impairment of total metabolic clearance.¹

in the case of Valium, propoxyphene produced a small but not statistically significant impairment of clearance.¹

propoxyphene had no apparent effect on the distribution, half-life or clearance of Ativan.¹

In this randomized crossover study, eight healthy male and female volunteers received single oral doses of alprazolam (1 mg), six received single IV doses of diazepam (10 mg), and five received single IV doses of lorazepam (2 mg), once in a drug-free control state and again during coadministration of pro-

poxyphene (65 mg q6h). Consistent with previous findings, this study evidences that Ativan does not interact with drugs that undergo oxidative metabolism.^{2,5} In contrast to most other benzodiazepines, Ativan does not compete for the cytochrome P-450 enzyme system.

The clinical implications of the pharmacokinetic interaction, or non-interaction, of propoxyphene with benzodiazepines are not established by this study. Even without a pharmacokinetic interaction, propoxyphene and benzodiazepines share central depressant properties and therefore should be coadministered with suitable caution. A concurrent pharmacokinetic interaction indicates a need for even further caution. Coadministration of propoxyphene and alprazolam, for example, would produce not only the expected pharmacodynamic interaction, but also whatever additional central depressant effect would be produced by the elevated steady-state plasma concentrations of alprazolam due to its impaired clearance.

Caution should also be observed when propoxyphene is prescribed for patients who use alcohol to excess.

References

1. Abernethy DR, Greenblatt DJ, Shader RI: Data on file, Wyeth Laboratories.
2. Patwardhan RV, Yarbrough GW, Desmond PV, et al: Gastroenterology 79:912-916, 1980.
3. Abernethy DR, Greenblatt DJ, Divoll M, et al: Psychopharmacology 80:275-278, 1983.
4. Abernethy DR, Greenblatt DJ, Divoll M, et al: N Engl J Med 306:791-792, 1982.
5. Ochs HR, Greenblatt DJ, Abernethy DR: Data on file, Wyeth Laboratories.

Wyeth Laboratories
Philadelphia, PA 19101



Ativan[®] for (lorazepam) ^{IV} Anxiety

DISTINCTIVE DESIGN 0.5, 1.0 and 2.0 mg

The appearance of these tablets is a registered trademark of Wyeth Laboratories

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper GI disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS. Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chloridiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan[®]
for (lorazepam)
Anxiety

DOSAGE: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

HOW SUPPLIED: 0.5, 1.0 and 2.0mg tablets.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.
2. Drinking to handle problems or relieve symptoms.
3. Obvious preoccupation with alcohol and the frequent need to have a drink.
4. Surreptitious drinking or gulping of drinks.
5. Tendency toward making alibis and weak excuses for drinking.
6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.
7. Frequent absenteeism from the job, especially following weekends and holidays.
8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.
9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.
12. Persistent marital and family problems, perhaps with multiple marriages.
13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee



JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 11

November 1984

SCIENTIFIC

The Occurrence of Delusions in the Absence of Other Psychotic Symptoms

Dennis J. Buchholz, Ph.D. and Ulises Pesce, M.D. 559

Current Status of Laser Therapy in Gynecology

*Byron J. Masterson, M.D., Thomas G. Day, Jr., M.D.
John A. Carlson, Jr., M.D. and I. Keith Stone, M.D.* 562

Sleep Apnea: The University of Kentucky Experience

Barbara Phillips, M.D. and Edward Luce, M.D. 567

Tumors of the Mediastinum (Grand Rounds)

Gary F. Earle, M.D. 579

EDITORIAL

DLS 593

ASSOCIATIONAL

**Report of the Committee to Investigate
Changing Trends in Medicine**

495

REGULAR FEATURES

President's Page 553

Book Reviews 589

Postgraduate Page 606

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific; Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign. (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 159-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1984-1985

Officers

President	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5553	1985
President-Elect	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371.....	1985
Immediate Past President	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334	1985
Vice President	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145.....	1985
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1987
Chairman, Board of Trustees	NELSON B. RUE, M.D. 1109 State Street, Bowling Green, KY 42101 (502) 781-5111.....	1985
Vice Chairman	HENRY R. "HANK" BELL, M.D. East Main Street, Elkton, KY 42220 (502) 265-2574	1985
Speaker, House of Delegates	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, M.D., 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., M.D., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1986
DONALD C. BARTON, M.D., Doctors Park, Corbin, 40701 (606) 528-2124.....	1985
RUSSELL L. TRAVIS, M.D., 152 West Zandale, Lexington, 40503 (606) 277-6143	1986

Alternate Delegates to AMA

WALLY O. MONTGOMERY, M.D., 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, M.D., 1000 Medical Arts Building, Louisville 40217 (502) 456-2180	1986
HAROLD L. BUSHEY, M.D., 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
CARL COOPER, JR., M.D., Cooper Clinic, Bedford 40006 (502) 255-3282.....	1986

Trustees

1st JOHN D. NOONAN, M.D., P. O. Box 7206 Paducah 42001 (502) 443-6472	1986
2nd.... ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265.....	1985
3rd.... HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574.....	1986
4th THOMAS R. TAYLOR, M.D., 914 N. Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216.....	1987
6th NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111	1987
7th WILLIAM P. McELWAIN, M.D., 321 S. Main Street, Lawrenceburg 40342 (502) 839-6981	1985
8th WILLIAM B. MONNIG, M.D., 201 Medical Plaza, 3104 Dixie Highway, Erlanger 41018 (606) 341-2672..	1987
9th R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th PRESTON P. NUNNELLEY, M.D., 2620 Willite Drive, Lexington 40503 (606) 278-0363.....	1985
11th DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1987
12th DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th GARNER E. ROBINSON, M.D., 700 Thirteenth Street, Ashland 41101 (606) 324-6181	1985
14th RONALD D. HALL, M.D., Town & Country Center, Pikeville 41501 (606) 432-5532	1986
15th EMANUEL H. RADER, M.D., P. O. Box 70, Pineville 40977 (606) 337-3559	1987

NOVEMBER BUYERS' GUIDE FOR JOURNAL OF KMA

Blue Cross/Blue Shield of Kentucky.....	555
Classified.....	610
Computer Terminal Service	592
Curtis 1000 Informational Systems	594
General Leasing Corporation	584
KMA Insurance Agency, Inc.....	556
KMA Insurance Agency, Inc.....	604
KMCO.....	605
KMA Physicians Financial Services.....	585
KMIC	574
Knoll Pharmaceutical.....	575,576,577,578

A.P. Lee Agency, Inc	606
Eli Lilly & Co	586
Louisville Baptist Hospital.....	588
Medical Protective Company	573
Physician Data Systems.....	554
Postgraduate Medicine	606
Reynolds & Reynolds	607
Roche Laboratories	582,583,584,611,612
Wyeth Laboratories	549,550,551
The Upjohn Company.....	557,558

PRESIDENT'S PAGE



While driving rapidly to the hospital recently, early one morning, I was gently pulled over by flashing blue lights on a car behind me. When accosted about my reason for speeding, I told the officer I was a physician on my way to the hospital for an emergency. With that, the gentleman replied, "If you're a doctor, let's see your AMA card." I was glad to show it to him, and he bade me be on my way.

There are many physicians in the Kentucky Medical Association who could not have made that move. I am devoting this month's message to them, but not because of the above mentioned advantage of the AMA card.

To begin, I think few Kentucky physicians realize the American Medical Association would not be the national amalgamation it is today were it not for a Kentucky physician. Doctor Joseph N. McCormack of Bowling Green spent the years 1902-1908, traveling this country of ours at the request of the AMA, joining county societies into state associations and then into the AMA as a whole. It was this consolidation that led to the vital organization which became so prominent in scientific medicine and politics by the 1930's. It was then possible for Doctors Morris Fishbein and Harvey Cushing to have lunch with President Roosevelt in 1937 and avert socialized medicine singlehandedly. Since that time, we have seen the "Professors' Revolt" in 1937, the takeover by the California group in the early 50's, and the financial problems culminating in the selection of James Sammons 10 years ago to guide the affairs of the Association. During this time, a

doctor from Kentucky, Irwin Abell, Sr., was the president in the tumultuous 30's.

Doctor Elmer Henderson was president during the battle against compulsory health insurance of the 40's, and Doctor Fred Rankin during all of World War II. Doctor Hoyt Gardner most recently was president during the strengthening of the internal organization of the AMA.

With this prologue, we come to the state of affairs of Kentucky physicians and the AMA as we send out our dues billing for 1985. In some of our counties, a minority of physicians belong to the AMA. In others, a minority of members of KMA belong to the AMA.

The reasons for non-membership are many—"The dues of \$330; the AMA doesn't do what I want; my specialty group does a better job; they spend too much on art."

I have personally been both in and out of the AMA but became convinced a long time ago that we had better all be in it. It has a grand and glorious tradition; it has worked on behalf of our patients for years. It is the only organization that can represent physicians of all types of practice and all specialties.

This country has become a caldron of pressure groups, and we had all better recognize that fact.

In March of this year when facing the vote on Mandatory Assignment, the AMA called on the state associations to "flood" Capitol Hill with physicians on one day. Doctors Donald Barton and Fred Rainey represented KMA in calling on all our Congressmen and both Senators. The Mandatory Assignment bill then failed on a voice vote in the House.

When the Joint Conference Committee of the House and Senate decided on the concept of participating and non-participating physicians, the AMA then decided to sue on constitutional grounds.

The other legal action taken by the AMA at this point was to seek an injunction against the October 1 starting date of the participating physician concept. A significant thing happened in the history of the AMA. The federal judge ruled that members of the AMA, and only members, had 15 additional days to receive their fee profiles and decide. This did not apply to all physicians for the first time.

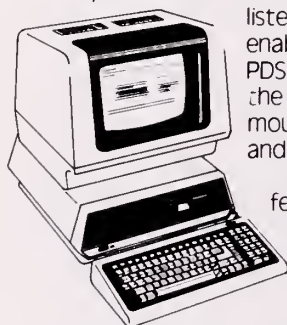
As 1985 comes, I see the AMA as the only way to represent all physicians. The Board of Trustees is strong, we have an articulate president, and the staff is technically excellent. Our Kentucky delegation is a strong one and well-known to the leadership.

So, I would urge you to join the AMA. Through the KMA and your delegation, you can have a voice in the AMA. As Doctor Joseph Boyle said, "The price of freedom is not always so free."

Charles C. Smith, Jr., M.D.
KMA President

WE'RE LISTENING

Combust is concerned about efficient office management.



PDS, the best medical office management system available today! How can we make such a statement? That's simple! We've listened to what you had to say. Doing so has enabled The Combust Group to develop the PDS System, the one system that has bridged the gap between the physician and his mounds of daily paper work. We're Listening, and there isn't a better way to learn.

Take a look at just a few of the automated features found on our PDS software and we're sure you'll agree, PDS is the best office management system on the market.

- Medicaid/Medicare Forms
- Accounts Receivables
- Accounts Receivable Aging
- Third Party Billings
- Statements
- Multi-office, Multi-physician
- Patient Charting Capability
- Uses standard CPT & ICD Codes
- History Taking System
- Appointment Scheduling
- Complete practice analysis

Combust provides complete on-going support; after the sale we continue to Listen!

The PDS System saves time, saves space, increases office productivity and is simple to operate. We can make your practice more efficient, productive, and profitable. Call The Combust Group today and Listen.

The logo for Physician Data Systems (PDS), consisting of the letters 'PDS' in a bold, stylized, blocky font.

PHYSICIAN DATA SYSTEMS

A Division of the COMBUST GROUP Incorporated

821 Corporate Drive ■ Suite 200 ■ Lexington, Kentucky 40503 ■ 606/223-5754

The card that gives you freedom of choice.

There are lots of new health care plans around today. Many claim to be the answer for holding down costs. But be careful. Look closely ... you may find a big surprise.

Our flexible benefit packages and

financing plans give you freedom to go to the physician or hospital of your choice. And you are backed by the card which is known and recognized anywhere you may travel.

Freedom of choice ... it's one more reason we're still the leader in health care protection. Get in touch with us today.

Blue Cross
Blue Shield
Delta Dental
of Kentucky



The best...yesterday,
today, tomorrow.

C.O.B.

Blue Cross Blue Shield of Kentucky
9801 Linn Station Road • Louisville, Kentucky 40223 • 502/423/2011

GROUP NO 3028

SUBSCRIBER'S NAME Your Name

BC PLAN CODE 160

BC IDENTIFICATION NO 406426685

BS PLAN CODE 660

BLUE CROSS		COVERAGE CODE		EFFECTIVE DATE		BLUE SHIELD		COVERAGE CODE		EFFECTIVE DATE	
TYPE	NO	MO	DAY	YR	TYPE	NO	MO	DAY	YR		
2	908F	1	1	84	2	70CU	1	1	84		
2		1	1	84	2	70	1	1	84		

TYPE OF CONTRACT
1 Single Contract(s)
2 Family Contract(s)
* Indicates No Coverage

* Reg. Marks Blue Cross and Blue Shield Assn.

* Reg. Mark Delta Dental Plans Assn.

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

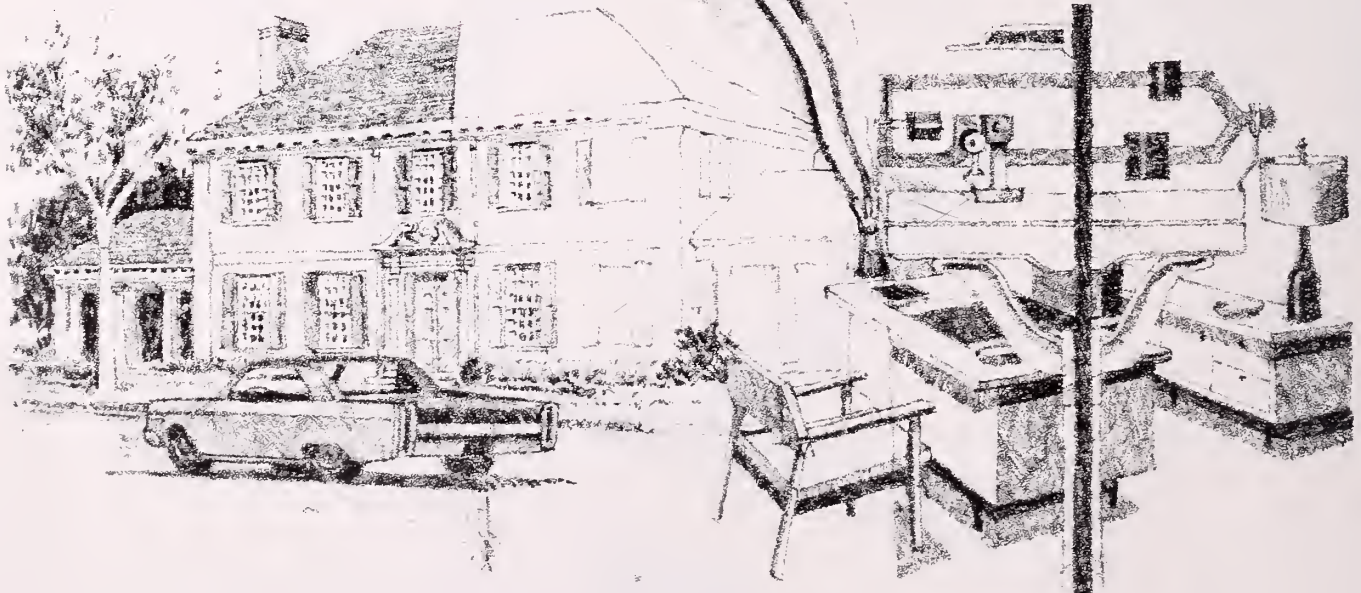
companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



Motrin reduces inflammation, pain ...and price

New low price...major savings

The dramatic reduction in the price of *Motrin* Tablets means substantial savings from now on for your patients and for patients all across the country for whom *Motrin* Tablets are prescribed.

Motrin is priced lower than Clinoril, Feldene, or Naprosyn.

The price of *Motrin* Tablets to pharmacies has been reduced as much as 35%. Patients taking the average dosage should now pay less for therapy with *Motrin* Tablets than for almost any other nonsteroidal anti-inflammatory drug you prescribe...less, for example, than for Clinoril, Feldene, or Naprosyn. And, of course, all strengths of *Motrin* Tablets continue to be available by prescription only.

Please turn the page for a brief summary of prescribing information.

Motrin[®] 400 & 600 mg TABLETS
ibuprofen

Good medicine...good value

Motrin® Tablets (ibuprofen)

Contraindications: Anaphylactoid reactions have occurred in individuals hypersensitive to Motrin Tablets or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin, iodides, or other nonsteroidal anti-inflammatory agents

Warnings: Peptic ulceration and GI bleeding, sometimes severe, have been reported. Ulceration, perforation and bleeding may end fatally. An association has not been established. Use Motrin Tablets under close supervision in patients with a history of upper gastrointestinal tract disease, after consulting ADVERSE REACTIONS. In patients with active peptic ulcer and active rheumatoid arthritis, try nonulcerogenic drugs, such as gold. If Motrin Tablets are used, observe the patient closely for signs of ulcer perforation or GI bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity with papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with Motrin Tablets.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin Tablets and the patient should have an ophthalmologic examination, including central visual fields and color vision testing.

Fluid retention and edema have been associated with Motrin Tablets, use with caution in patients with a history of cardiac decompensation or hypertension. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of Motrin Tablets safety in patients with chronic renal failure have not been done.

Motrin Tablets can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, skin rash, weight gain, or edema.

Patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin Tablets are added.

The antipyretic, anti-inflammatory activity of Motrin Tablets may mask inflammation and fever.

As with other nonsteroidal anti-inflammatory drugs, borderline elevations of liver tests may occur in up to 15% of patients. These abnormalities may progress, may remain essentially unchanged, or may be transient with continued therapy. Meaningful elevations of SGPT or SGOT (AST) occurred in controlled clinical trials in less than 1% of patients. Severe hepatic reactions, including jaundice and cases of fatal hepatitis, have been reported with ibuprofen as with other nonsteroidal anti-inflammatory drugs. If liver disease develops or if systemic manifestations occur (e.g. eosinophilia, rash, etc.), Motrin should be discontinued.

Drug interactions: Aspirin, used concomitantly may decrease Motrin blood levels.

Coumarin, bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal of which one or more occurred in 4% to 16% of the patients.

Incidence Greater than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic/Endocrine:** Decreased appetite. **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence less than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests. **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia. **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS). **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations. **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS). **Renal:** Acute renal failure in patients with pre-existing significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria. **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence less than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri. **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Bleeding episodes (e.g. epistaxis, menorrhagia). **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction. **Cardiovascular:** Arrhythmias (sinus tachycardia, sinus bradycardia). **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis. **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with Motrin. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under "Probable Causal Relationship (PCR)" if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under "Causal Relationship Unknown" if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Do not exceed 2400 mg per day. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary.

Caution: Federal law prohibits dispensing without prescription.

MED B 7 S

Motrin is a registered trademark of The Upjohn Manufacturing Company.

Upjohn

The Upjohn Company
Kalamazoo, Michigan 49001



Ad Council

U.S. Department of Transportation

**DRINKING & DRIVING
CAN KILL A FRIENDSHIP.**

Ad Council

A Public Service of This Publication
© 1984 The Advertising Council, Inc.

The Occurrence of Delusions in the Absence of Other Psychotic Symptoms

DENNIS J. BUCHHOLZ, PH.D. AND ULISES PESCE, M.D.

The authors describe a case of non-paranoid, non-jealous grandiose delusions in the absence of other psychotic symptoms. Available diagnostic criteria require a classification of such patients as schizophrenic, although the syndrome appears to be a type of paranoid disorder.

Classical theories of delusional thinking have been based on varied concepts including abnormalities of personality development,¹ cognitive processes,² affect,³ and perception,⁴ as well as on the concepts of learning theory.^{5,6} Each of these approaches has generally considered delusional thinking to be one of several symptoms indicative of schizophrenia, affective psychosis, organic psychosis, drug-induced psychosis, or paranoid psychosis. Isolated, non-paranoid delusions in the absence of other psychotic symptoms are unusual, but not as rare as is implied by the absence of a suitable category for these patients in DSM III.

The present case is offered as an example of the non-paranoid, grandiose, delusional patient in an effort to stimulate consideration of this diagnostic group.

Case Report

The patient is a 26-year-old construction worker with a high school education. He has a history of good functioning and adjustment up until this first psychiatric episode and hospitalization which occurred three months after losing his job in a general layoff. Prior to admission he was detained by police for one week while interstate transfer was arranged. This was the first incidence of psychiatric treatment or hospitalization for anyone in his family.

With brief examination or observation on the ward, his behavior seemed entirely within normal limits. He

had good social skills and was able to relate well with both patients and staff. His range of effect was normal, and he would laugh or get angry in entirely appropriate ways. No evidence of mania, depression, or drug abuse could be identified.

The one serious psychiatric symptom which he did show was an elaborate delusional symptom. He stated very convincingly that he was married and divorced to a woman who was now in jail, and that he had two children who were living with relatives. He said that he had been asked by an agency of the government to help in some criminal investigations and that he was owed a considerable amount of money in regard to these investigations. He supported these ideas with detailed explanations, including names of people and places, dates, and elaborate sequences of ancillary events. The patient went to significant effort to verify his ideas by attempting to locate relevant public records, but his efforts were consistently unsuccessful. There was no record of his ever being married or having any of the other experiences he described. His reaction to repeated presentations of evidence refuting his experiences was a very detached, matter-of-fact statement to the effect that a mistake had been made in the investigation which he openly admitted he was unable to explain.

This patient's medical evaluation included a physical examination, CBC, SMA-12, neurological examination and thyroid functions tests which were all within normal limits. A structured substance abuse interview revealed no evidence of drug usage other than alcohol consumption at the rate of three to six cans of beer per week. This history was confirmed by family members who further stated that he had not consumed any alcohol for six months. Physiological drug screening was not conducted due to the lengthy time period (seven days) between when the patient was first identified and held by the police, and when he was admitted. Psychological

DELUSIONS—Buchholz and Pesce

evaluation included a neuropsychological battery which was unremarkable and the MMPI. MMPI T-scores (L-56, F-47, K-62, Hs-46, D-58, Hy-59, Pd-47, Mf-49, Pa-47, Pt-58, Sc-50, Ma-55, Si-50) were interpreted as showing a personality style characterized by lack of insight and denial of psychological issues. These traits may possibly have obscured evidence of paranoid or other psychotic features. However, no evidence of psychosis other than delusions was evident.

Following evaluation, the patient was treated with 5 mg thiothixene hydrochloride bid, which was increased to 10 mg bid after 10 days. Individual and group psychotherapy was provided, although he was extremely resistant to the discussion of any interpersonal issues and little progress was gained. Within 24 hours of increasing the dosage of his medication, he showed a dramatic reversal of his symptoms. Literally overnight he began saying that his previous statements about his marriage, his children, and his employment by the government were untrue. He was fully aware that he had made the statements, but he now said that they were false and that he was unable to explain why he made them. MMPI T-scores (L-56, F-45, K-54, Hs-37, D-55, Hy-46, Pd-47, Mf-54, Pa-54, Pt-56, Sc-50, Ma-70, Si-49) obtained at this time showed no significant change from the previous testing with the exception of an elevated MA score which superficially appeared related to his restlessness over being confined in the hospital. Following discharge he was rehired by his former employer and at three month follow-up he was functioning adequately.

Discussion

An elaborate, non-persecutory, non-jealous delusional system was seen in this patient in the absence of other psychotic symptoms or affective disturbance. The patient was not suspicious or distrustful at any time, and he actively encouraged the investigation of his claims.

Of the many theories available for the explanation of delusional thinking,⁷ the ones which appear most relevant to this case are those which emphasize the exaggerated use of normal defense mechanisms.^{8,9} This approach points to the importance of projected need as the primary source of delusional content without the need for postulating extraordinary psychological processes. The patient's delusions appeared to be manifestations of a diminished perception of self-worth, social isolation, and lack of ego strength. He had a very

high personal investment in his job prior to being subject to a seasonal layoff, and his career formed the central focus of his self-concept. He had few interests outside of work and had little to verify his self-worth following the loss of his job. With the loss of his one major source of ego enhancement, he succumbed to externalization of his inner need to be valued.

The typical progression observed clinically in this type of case is initial grandiosity (seen here) which later leads to paranoia. With repeated public challenge to their grandiose ideas, such patients typically begin to be defensive and eventually show frankly persecutory thinking. Their delusion remains fixed, but their attitude towards others' reaction to it changes radically.

While patients with these characteristics are not rare, available diagnostic criteria are of limited help. DSM III criteria for acute paranoid disorder (298.30) require the presence of persecutory or jealous delusions lasting less than six months. Grandiose delusions, regardless of their magnitude, are insufficient to qualify for this diagnosis. The only remaining category which can be applied to this patient is schizophreniform disorder (295.40). This classification can be used for patients with isolated grandiose delusions if they also show a deterioration of functioning and symptom duration of two weeks to six months. The duration factor is appropriate with this patient, although evidence for deterioration of functioning is equivocal. The patient did lose his job but not obviously by any fault of his own. All of the other men in his crew were laid off simultaneously, and he was rehired by the same employer after discharge. Certainly, the patient did not appear schizophrenic according to traditional Bleulerian or Schneiderian criteria.

Expansion of the category of paranoid disorder to include patients with only isolated grandiose delusions may promote better understanding and treatment of this condition. This is consistent with the suggestions of Winokur.¹⁰

References 1. Kretschmer E: *Der sensitive Beziehungswahn*. Berlin:Springer, 1927. 2. Berze J: in Berze J and Gruble HW (Eds.): *Psychologie der Schizophrenie*. Berlin:Spring, 1929. 3. Gruble HW: In Bunke O (Ed.): *Handbuch der Geisteskrankheiten*. Vol. V. Berlin:Springer, 1932. 4. Clerambault G de: *Oeuvre Psychiatrique*. Paris:Presses Universitaires de France, 1942. 5. Dollard J and Miller NE: *Personality and Psychotherapy*. New York:McGraw Hill, 1950. 6. Mednick SA: A learning theory approach to research in schizophrenia. *Psychological Bulletin* 55:316-325, 1958. 7. Arthur AZ: Theories and explanations of delusions: A review. *The American*

DELUSIONS—Buchholz and Pesce

Journal of Psychiatry 121:105–115, 1964. **8.** Freud S: Psychoanalytic notes upon an autobiographical account of a case of paranoia (dementia paranoides). In *Collected papers, Vol III*: London: Hogarth, 1950. **9.** Henderoan DK and Gillespie RD: *A textbook of Psychiatry*. 4th Ed. London: Oxford University Press, 1936. **10.** Winokur G: Delusional disorder (paranoia). *Comprehensive Psychiatry* 18:511, 1977.

Editors' Note

An isolated delusional symptom would suggest an organic etiology, drugs, etc.

From the Division of Neurosurgery and the Department of Neurology, University of Louisville School of Medicine, Louisville, KY 40292 and the Department of Psychiatry, University of South Dakota, School of Medicine, Yankton, SD 57078.

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Current Status of Laser Therapy in Gynecology

BYRON J. MASTERSON, M.D., THOMAS G. DAY, JR., M.D.

JOHN A. CARLSON, JR., M.D. AND I. KEITH STONE, M.D.

The current status of laser therapy in gynecology is discussed. Current clinical applications of the carbon dioxide and neodymium-YAG lasers are described.

Schawlow and Townes¹ first proposed laser theory in 1958. Since then optical physicists and others have expanded this principle. The laser-emitting units of today are smaller, more mobile, and more adaptable for surgery. For the surgeon, the most significant modification is the micromanipulator, which allows the laser to be used through an operating microscope.

There are more than 50 lasers available. Those currently used in gynecologic surgery include the carbon dioxide and the neodymium-YAG laser. The senior author's interest in the field extends from his clinical applications of the CO₂ laser in 1975, through research with the Argon laser currently being conducted at the University of Louisville, School of Medicine.

While the laser can be used for making incisions, tissue dissection, excision, vessel coagulation and tissue vaporization, the principle application in gynecologic surgery is tissue coagulation. Currently, there are exciting experimental applications being studied and developed, such as laser use in tubal surgery. Improvements in fiberoptic transmission and camera miniaturization will increase laser application. However, scientific evidence of therapeutic efficiency and cost effectiveness is needed before new clinical applications can be incorporated into routine clinical practice.

Lasers Used in Gynecologic Surgery

Carbon dioxide (CO₂) laser is by far the most commonly used laser in gynecologic surgery. Its beam is in the middle infrared region at 10,600 nanometers (nm). Because the CO₂ laser beam is predominantly absorbed in water, there is little scattering and the energy is

completely transformed into heat. The major effect of the CO₂ beam, therefore, is limited to the area on which the beam is focused. Surface proteins are completely carbonized, producing a narrow layer of carbon at the margins of the wound with a channel where the tissue has been removed. The CO₂ laser beam causes minimal (though important in terms of wound healing) thermal injury to the three or four cell layers surrounding the treated site. The CO₂ laser is primarily used for the treatment of nonmalignant lesions for which rapid vaporization is appropriate. These include condylomas and precancerous lesions of the cervix, vagina and, where applicable, vulva.

Increasing numbers of patients with condyloma acuminata are being seen throughout the United States.² This increase has occurred in vulvar, vaginal, cervical, intraurethral and anal condyloma. Since Goldman and Rockwell first reported the use of the laser in skin lesions, management of condyloma acuminata with the carbon dioxide laser has gained wider acceptance. McBurney and Powell³ reported the efficiency of the laser in managing condyloma acuminata and small series have reported success rates as high as 100%.⁴ Other studies, including the senior author's, report recurrence rates of 5-5½%⁵ and 9%.⁶ Fig. 1 is the senior author's protocol for managing condyloma acuminata.

The most commonly accepted use of the CO₂ laser in gynecologic surgery is in the management of cervical intraepithelial neoplasia. Two major techniques, vaporization and laser excisional cone, can be used. Recent reports on vaporization indicate success rates of 87-96%.⁷⁻⁹ The choice of laser excisional cone is primarily determined by the extent of disease, unsatisfactory diagnostic reports, or failure of previous treatments. Recent studies of the effectiveness of laser excisional cone have reported a 96% success rate.⁹ When laser excisional cone is compared to conization by cold knife there is a significantly lower incidence of bleeding com-

plications and a lower rate of blood loss.^{9,10} With these results this laser conization procedure may gain wider acceptance. Fig. 11 is the senior author's protocol for managing abnormal cervical cytology.

Laser therapy of vaginal intraepithelial neoplasia appears to be an effective treatment modality. A recent study reported two failures out of 15 patients.¹¹ Another reported that in 92% of the patients the lesions were completely removed.¹² When using the laser to treat vaginal intraepithelial neoplasia the physician and the patient must recognize that few long range studies have been reported. Multiple treatments may be necessary and certainly frequent and prolonged follow-up is essential. If a patient continues to have progressive disease, or fails to respond to laser treatment, one of the more conventional methods should be used.

Laser treatments for vulvar carcinoma *in situ* has been gaining acceptance as a conservative therapy. Two recent studies reported good results with success rates of 91%¹³ and 94%.¹⁴ An important advantage of this technique is that it allows the preservation of the vulvar anatomy.

Interest in the carbon dioxide laser for tissue welding in tubal microsurgery continues despite the fact that there appears to be no theoretical nor factual basis. Baggish has reported thermal damage from laser excision in the human tube at 500 to 1,000 micrometers, and in fact, abandoned the laser welding technique after observing separation of the welded tissues.¹⁵ Fayez *et al* also noted the deleterious effect of laser microsurgical incision compared to conventional scalpel microsurgical incision in tubal reconstruction.¹⁶ Not one of the tubes resected by laser and reanastomosed by welding with the laser showed patency and all developed hydrosalpinges.

The neodymium-YAG laser with a wave length of 1,060 nanometers in the infrared energy spectrum has also been used in gynecologic surgery. The light energy of this laser passes through water and penetrates to the depth of 5-6 millimeters. Its energy, therefore, is scattered and involves much more tissue. A dramatic demonstration of this laser's area of injury is seen when the neodymium-YAG is directed at an egg white. In this protein substance there is a great area of injury beneath the surface, producing an opaqueness indicating the denaturing of this protein. This observation of the deep and significant area of injury should be remembered by all who use the neodymium-YAG.

In gynecologic surgery, this laser has been used primarily to remove invasive tumors from areas difficult or impossible to resect. There is no conclusive evidence that this is clinically valuable in gynecologic oncology although research continues. Goldrath *et al* have reported on the use of the neodymium-YAG laser as an alternative to hysterectomy for menorrhagia.¹⁷ There has also been a recent report on the use of a fetoscope-directed neodymium-YAG laser to coagulate and sever fetal tissues in sheep.¹⁸ The use of the neodymium-YAG laser in gynecologic surgery remains experimental until there are conclusive reports of its efficacy and cost-effectiveness.

Conventional Alternatives

Carbon dioxide laser treatment in gynecologic surgery is used as an alternative to conventional therapies, such as electrocautery, cryosurgery, and conization, and the surgical techniques of hysterectomy, vaginectomy and vulvectomy.

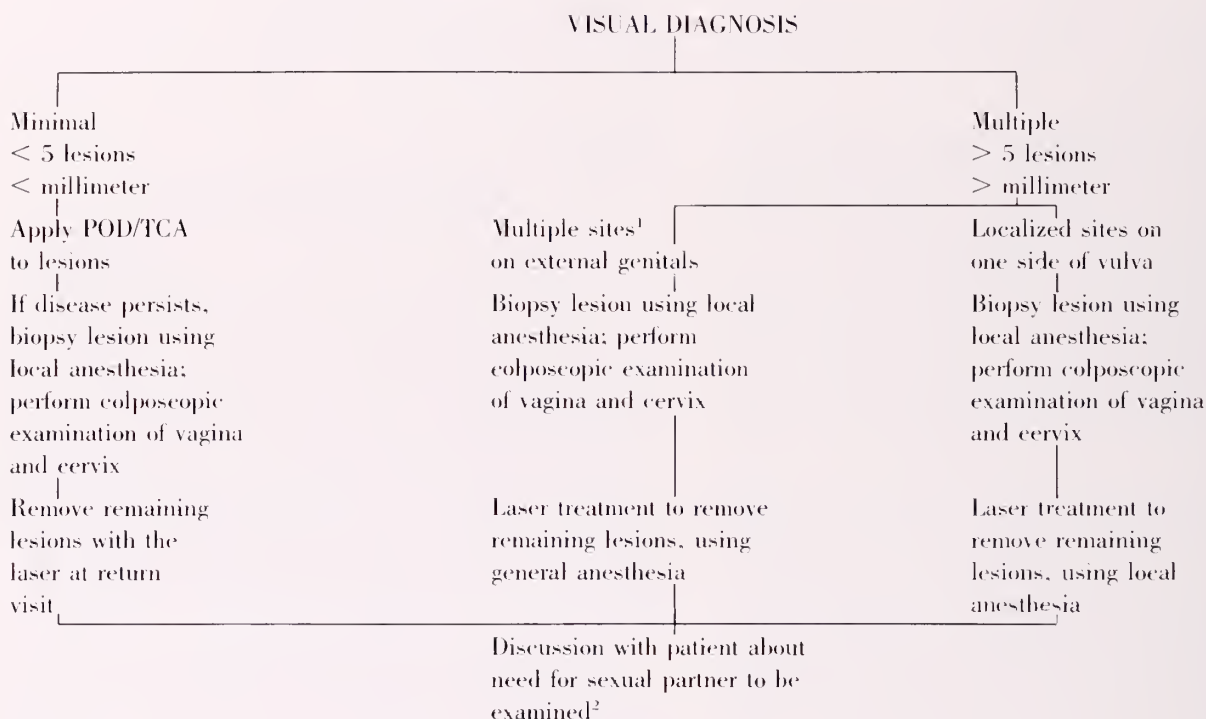
Electrocautery uses an electric diathermy needle and ball to destroy abnormal tissue. Although an apparently effective treatment of cervical intraepithelial neoplasia (CIN),^{19,20} the major disadvantages of hospitalization, use of general anesthesia, extensive vascular injury, and necrosis⁶ make this modality less attractive.

Cryosurgery, which causes necrosis by freezing, has been shown to be effective in treating CIN.²¹ Problems associated with cryosurgery include unselected destruction of normal tissue and patient complaints about the heavy, persistent discharge following cryosurgery. At least one study has reported the frequent relocation of the squamocolumnar junction into the canal and therefore out of sight of the colposcopist.²² One advantage shared by laser treatment and cryosurgery is that they are both outpatient procedures. Cryosurgery is useful in the patient who has symptomatic cystic cervicitis. Following an initial period of healing, cessation of discharge may be expected.

Conization, the surgical removal of abnormal tissue, is primarily used as a diagnostic tool, but may also be used as a therapeutic technique. Some clinicians recommend that conization be done in cases of extensive lesions, distorted cervical surfaces, patient preference or potentially unreliable follow-up.²³ However, conization should be considered a major surgical procedure with the potential of the usual risks of surgery and complication such as bleeding or infection. A re-

FIGURE 1

**SCHEMATA FOR
MANAGEMENT OF CONDYLOMA ACUMINATA
WITH OUTPATIENT LASER THERAPY**



¹This assumes: a. no lesions on vagina and cervix

b. if there are white lesions on cervix, they should be removed at same time

c. careful anal evaluation and treatment as indicated

d. individualized care for pregnant patients

²If condyloma recurs, patients education should include discussion of necessity of having sexual partner's urethra examined, particularly in absence of lesions on sexual partner's external genitals.

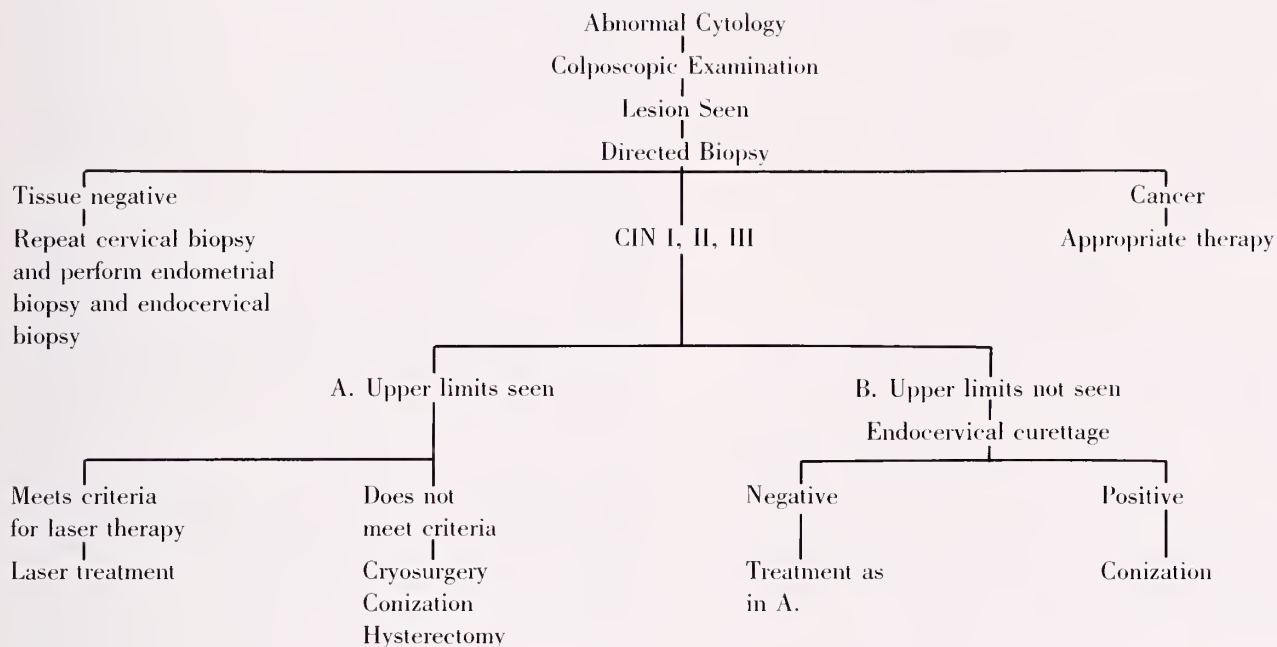
cent study¹⁰ reports good results with laser conization, a technique which may significantly reduce some of the bleeding complications.

Hysterectomy, vaginectomy and vulvectomy today are considered radical treatments for preinvasive lesions. They not only significantly alter the anatomy, but because of their surgical nature, require hospitalization and have a prolonged postoperative recovery period.

Advantages of Laser Treatment

The laser offers the surgeon control and precision in the destruction of tissue. Bleeding is minimized, thus offering improved visibility. Most patients report only minor pain during or after the laser treatment, compared to the more severe pain which often results from alternative treatment modalities. Laser surgery in gynecology is usually an outpatient procedure, which eliminates the inconvenience and cost of hospitalization.

FIGURE II
SCHEMATA FOR
MANAGEMENT OF ABNORMAL CERVICAL CYTOLOGY
AFTER COLPOSCOPIC EXAMINATION DURING WHICH LESION IS SEEN



Limits of Laser Treatment

While the laser is fast becoming an increasingly useful treatment modality, there are limits to its application. Most incisions can be performed more quickly with a scalpel. Moreover, laser treatment produces little specimen for pathologic examination. Therefore, the use of the laser for local excision of small vulvar lesions should be limited to those of known microscopic type. Suspicious pigmented lesions always need sharp excision. The laser also is limited in its ability to coagulate vessels larger than 1 mm. Even the diffused CO₂ laser cannot coagulate vessels much over 1 to 2 mm in diameter. This limits the laser's efficiency in the rapid excision of large lesions.

The laser's most important limitation is its effect on the dynamics of the wound-healing process. The senior author recently completed the first of several studies of tissue interactions, focusing particularly on wound healing. This study compares the effects of thermal injury induced by a CO₂ laser, an electrosurgical scalpel, and a standard cold scalpel. Subcutaneous incisions of standard length and depth were made in pigs and a

serial study of the wound-healing process was done on post-incisional Days one, four, seven, 14 and 22. Completion of epithelial migration, average residual scar width, existence of the lateral thermal necrotic zone, and wound breaking strength were evaluated.

The results show that thermal injury does indeed affect the overall dynamics of wound healing. Completion of the epithelial migration occurred during Day one for the standard cold scalpel, and between Days four and seven for the electrosurgical scalpel and the CO₂ laser. For each time period, the average residual scar width for the standard scalpel was less than those of the electrosurgical scalpel and the CO₂ laser. The lateral thermal necrotic zone was absent for the standard scalpel, but was evident with increasing density for the electrosurgical scalpel and the CO₂ laser. As might be expected, the incisions of the standard scalpel by Day 14 had significantly more breaking strength than those made with the other instruments.

Each type of laser has different effects on tissue. Thus, tissue response to each laser beam must be carefully studied and evaluated before it is applied to patient care.

Clinic Organization for Outpatient Laser Treatment

Because of technical complexity, a well organized team is necessary for efficient clinical use of lasers. Patient compliance with post-laser treatment instructions and follow-up education are increased by an attentive nursing staff.²⁴ To assure equipment performance, one staff member should have responsibility for maintenance and safety measures. Correlation of cytologic and pathologic reports, record keeping, adequate provision of supplies and record retrieval need to be coordinated to enhance the smooth operation of the laser unit.

Summary

The laser has now been used for approximately 10 years in the treatment of gynecologic conditions. The CO₂ laser appears to be the most useful laser for clinical applications in gynecologic surgery. Studies of the use of the neodymium-YAG laser in tissue destruction, as well as the use of the CO₂ laser in reconstructive surgery, are underway. The completion of these studies will hopefully show new and exciting possibilities for the use of lasers in gynecologic surgery.

References 1. Schawlow AL, Townes CH: Infrared and optical masers. *Physical Rev* 112:1940-1949, 1958. 2. Powell CL, Jr: Condyloma acuminatum: recent advances in development, carcinogenesis, and treatment. *Clin Obstet Gynecol* 21:1061-1079, 1978. 3. Goldman L, Rockwell RJ, Jr: Lasers in Medicine. Gordon and Breach Science Publishers, New York, 1971. 4. McBurney EI: Carbon dioxide laser treatment of dermatologic lesions. *South Med J* 71:795-797, 1978. 5. Baggish MS: Carbon dioxide laser treatment for condylomata acuminata venereal infections. *Obstet Gynecol* 55:711-715, 1980. 6. Calkins JW, Masterson BJ, Magrina JF, Capen CV: Management of condylomata acuminata with the carbon dioxide laser. *Obstet Gynecol* 59:105-108, 1982. 7. Burke L: The use of the carbon dioxide laser in the therapy of cervical intraepithelial neoplasia. *Am J Obstet Gynecol* 144:337-340, 1982. 8. Masterson BJ, Krantz KE, Calkins JW, Magrina JF, Carter RP: The carbon dioxide laser in cervical intraepithelial neoplasia: a five-year experience in treating 230 patients. *Am J Obstet Gynecol* 139:565-567, 1981. 9. Baggish MS: Management of cervical intraepithelial neoplasia by carbon dioxide laser. *Obstet Gynecol* 60:378-384, 1982. 10. Larsson G, Alm P, Grundsell H: Laser conization versus cold knife conization. *Surg, Gynecol and Obstet* 154:59-61, 1982. 11. Capen CV, Masterson BJ, Magrina JF, Calkins JW: Laser therapy of vaginal intraepithelial neoplasia. *Am J Obstet Gynecol* 142:973-976, 1982. 12. Townsend DE, Levine RU, Crum CP, Richart RM: Treatment of vaginal carcinoma in situ with the carbon dioxide laser. *Am J Obstet Gynecol* 143:565-568, 1982. 13. Baggish MS, Dorsey JH: CO₂ laser for the treatment of vulvar carcinoma in situ. *Obstet Gynecol* 57:371-375, 1981. 14. Townsend DE, Levine RU, Richart RM, Crum CP, Petrilli ES: Management of vulvar intraepithelial neoplasia by carbon dioxide laser. *Obstet*

Gynecol 60:49-52, 1982. 15. Baggish MS, Chong AP: Carbon dioxide laser microsurgery of the uterine tube. *Obstet Gynecol* 58:111-116, 1981. 16. Fayez JA, Jobson VW, Lentz SS, Payne DG, Westra DF, Martin DK: Tubal microsurgery with the carbon dioxide laser. *Am J Obstet Gynecol* 146:371-373, 1983. 17. Goldrath MH, Fuller TA, Segal S: Laser photovaporization of endometrium for the treatment of menorrhagia. *Am J Obstet Gynecol* 140:14-19, 1981. 18. DeVore GR, Dixon JA, Hobbins JC: Fetoscope-directed neodymium-YAG laser: a potential tool for fetal surgery. *Am J Obstet Gynecol* 145:379-380, 1983. 19. Chanen W, Hollyock VE: Colposcopy and the conservative management of cervical dysplasias and CIS. *Obstet Gynecol* 43:527-543, 1974. 20. Ortiz R, Newton M, Tsai A: Electro-cautery treatment of cervical intraepithelial neoplasia. *Obstet Gynecol* 41:113-116, 1973. 21. Townsend DE, Richart RM: Cryotherapy and carbon dioxide laser management of cervical intraepithelial neoplasia: a controlled comparison. *Obstet Gynecol* 61:75-78, 1983. 22. Baggish MS: High-power-density carbon dioxide laser therapy for early cervical neoplasia. *Am J Obstet Gynecol* 136:117-125, 1980. 23. Benedet JL, Anderson GH, Simpson ML, Shaw D: Colposcopy, conization, and hysterectomy practices: a current perspective. *Obstet Gynecol* 60:539-545, 1982. 24. Winer WK: Laser treatment of cervical neoplasia. *Am J Nursing* 82:1384-1387, 1982.

From the University of Louisville School of Medicine, Department of Obstetrics and Gynecology, 550 South Jackson Street, Louisville, Kentucky 40292. (502) 588-5814.

Sleep Apnea

The University of Kentucky Experience

BARBARA PHILLIPS, M.D. AND EDWARD LUCE, M.D.

We report our experience with a clinical sleep lab at the University of Kentucky Medical Center. We performed 55 sleep studies on 51 patients; half of these studies were positive for sleep-related breathing disturbances, including 12 with obstructive sleep apnea, seven with mixed sleep apnea, three with central sleep apnea, and two with severe hypopnea. Three patients with documented obstructive sleep apnea have undergone uvulopalatopharyngoplasty at this institution; all are improved. The definitions, pathophysiology, diagnosis, and management of sleep-related breathing disorders are discussed.

Clinicians have long been aware that sleeping disturbances are common, troublesome problems to patients and their doctors. Recent information in the medical literature about sleep-related breathing disorders has brought to our attention that disturbed sleep may be the outward symptom of a severe underlying medical condition. The purpose of this paper is to briefly review the definition, pathophysiology, diagnosis and treatment of the sleep-related breathing disorders, and to present the results of the past year's experience with a sleep laboratory at the University of Kentucky Medical Center.

Definitions

The terms Pickwickian syndrome, sleep apnea, and obesity-hypoventilation syndrome are frequently and sometimes interchangeably used in the literature. Although related, they are not synonymous (Table 1).

The Pickwickian syndrome, as first described by Burwell in 1956,¹ is a term applied to a constellation of signs and symptoms, including obesity, daytime somnolence, twitching, cyanosis and apnea during sleep,

polycythemia, right ventricular enlargement, right heart failure, daytime hypoxemia and hypercapnea, and blunted ventilatory responsiveness to carbon dioxide. As defined by Burwell, the Pickwickian syndrome includes waking hypoventilation, sleep apnea, obesity, and right heart failure. Because it is such a general term, it is best avoided in favor of more specific definitions outlined below.

Obesity hypoventilation can be defined in the absence of sleep-related breathing disorders. The patient with obesity-hypoventilation is obese and has reduced responsiveness to CO₂, in the absence of obstructive lung disease. Blunted CO₂ responsiveness may be manifested as either an elevated resting arterial carbon dioxide pressure or as a failure to increase minute ventilation appropriately during carbon dioxide rebreathing.

Sleep apnea refers specifically to disturbed ventilation during sleep. Apnea is classically defined as cessation of airflow at the nose and mouth for at least 10 seconds. Most authorities define sleep apnea as 30 apneic episodes over a seven-hour period which includes

TABLE 1: DEFINITIONS

Pickwickian Syndrome: a constellation of symptoms and signs, encompassing right heart failure, obesity, hypoventilation, and sleep apnea; an out-moded term.

Obesity-hypoventilation: blunted response to CO₂ (in the absence of obstructive lung disease) combined with obesity.

Apnea: cessation of airflow at the mouth and nose for 10 seconds or longer.

Hypopnea: Reduction in airflow, with arterial desaturation. May be obstructive or mixed.

Sleep Apnea: 30 or more apneic episodes over a seven-hour period, which must include some nonREM sleep.

Obstructive: ventilatory effort persists throughout the apneic period.

Central: ventilatory effort absent during apneas

Mixed: ventilatory effort absent initially during apnea, but resumed before airflow is re-established.

TABLE II

UKMC Sleep Lab Experience
(August, 1983)

55 studies on 51 patients

men 36 studies
20 positive (56%)

women 15 studies
4 positive (27%)

Ages 20 months to 78 years

TABLE III

UKMC Sleep Lab Experience
Types of Apnea

24 positive studies
12 obstructive apnea
3 central apnea
7 mixed apnea
2 severe hypopnea

some nonREM sleep. Most people with this syndrome have hundreds of apneic episodes during a single night's sleep.² Sleep apnea may be classified as obstructive, central, or mixed. Obstructive apnea, the most common form, is seen in the patient who makes persistent ventilatory effort against a closed upper airway throughout the apneic period. Central apnea, which probably accounts for less than 10% of all cases, is defined by the absence of respiratory drive or effort during apnea. Mixed apnea is manifested by absence of respiratory effort at the beginning of the apnea, with resumed, usually vigorous, effort some seconds before airflow is re-established.

One last form of inadequate ventilation during sleep is hypopnea, *reduced* (but not absent) airflow, resulting in significant arterial oxygen desaturation; hypopneas can be obstructive or central. Patients with true sleep apnea frequently exhibit hypopneas as well as apneas, and hypopnea is probably a major cause of nocturnal hypoxemia in patients with chronic obstructive lung disease.^{2,3}

Mechanisms

The pathophysiology of sleep apnea is still incompletely understood. However, it is clear that both anatomic obstruction and central disturbance of ventilatory control underlie mixed and obstructive apnea. Computerized axial tomography of the upper airway in patients with sleep apnea has indicated significant airway

narrowing in patients with documented sleep apnea as compared to controls.⁴ Airway narrowing most commonly occurs at the nasopharynx and hypopharynx. The cause of narrowing of the upper airway in sleep apnea patients appears to be excessive soft tissue, including hypertrophic lymphoid tissue, edematous mucosa, and redundant mucus membranes. Direct endoscopic visualization has confirmed airway narrowing in most patients with obstructive sleep apnea.⁵

The most attractive theory about central nervous system involvement in sleep apnea suggests that a control system instability exists: central drive to the upper airway muscles of respiration in the pharynx may be outweighed by stimulation of the thoracic respiratory muscles, resulting in a collapse of the upper airway during inspiratory efforts.⁶ In an individual with an underlying perturbation of ventilatory control during sleep, the resulting hypoxia, hypercarbia, and acidosis may aggravate the tendency for central nervous system instability.^{7,8}

Diagnosis

The history frequently suggests the diagnosis of sleep apnea. The *sine qua non* of obstructive sleep apnea is snoring. The literature abounds with cases of patients with severe obstructive sleep apnea whose bed partners abandoned their beds for other beds or even other rooms. Snoring is thought to result from turbulent airflow in the posterior oropharynx in the patient whose attempts at inspiration are obstructed. These patients classically thrash, twitch, and wake repeatedly during sleep. Sleep walking and nightmares have also been reported. Because of restless sleep, sleep apnea patients frequently report excessive daytime sleepiness. It is not uncommon for such patients to complain of falling asleep during eating or conversation. Although these patients are chronically sleep-deprived and can actually drift off to sleep for a brief period at almost any time, quite a few patients with sleep apnea will complain of insomnia. Another common symptom is morning headache, probably resulting from carbon dioxide retention. On direct questioning, patients may complain of impotence, loss of libido, and marital discord, while their spouses report personality changes such as irritability and forgetfulness. Patients with sleep apnea may note a recent weight gain. This may occur because there is a "threshold" weight above which the individual develops sleep apnea, or it could be due to severe repeated bouts of hypoxemia and resulting cor pulmonale.

SLEEP APNEA—Phillips and Luce

Physical exam of the classic patient with sleep apnea reveals an overweight, middle-aged man. There is no longer any doubt that obesity predisposes to sleep apnea. In one study,⁹ 14 morbidly obese subjects scheduled for bypass surgery were studied for sleep apnea. Of the seven men included in this group, six experienced oxygen desaturation or abnormal breathing during sleep. Four of those men subsequently had gastric bypass and lost an average of 108 kilograms. All subjects had significant reductions in sleep disordered breathing following weight loss.¹⁰ Other workers have found that the majority of their patients with sleep apnea were not obese;⁷ however, the prevalence of obesity is higher in patients with sleep apnea than in the average population. The majority of the patients with sleep apnea are male, perhaps because of their laryngeal architecture, but more likely because of the respiratory stimulant effects of progesterone (or because of the property of testosterone as a respiratory depressant¹¹). Women with sleep apnea are generally post-menopausal. Edema, hepatic enlargement, jugular venous distension, and other signs of right heart failure may be seen in patients who have developed cor pulmonale. Up to 60% of adults with sleep apnea have elevated systolic and diastolic blood pressure;⁷ it is unclear whether this is a result of sleep apnea or an associated finding. Men with sleep apnea frequently have short, thick necks. On ear, nose, and throat examination, a significant number will have nasal polyps, septal deviation, enlarged uvulas, and redundant soft palates and lymphoid tissue. Micrognathia, hypothyroidism, and acromegaly have all been reported with obstructive sleep apnea and should be looked for on physical examination.^{12,13}

Routine laboratory evaluation may reveal polycythemia, as frequent nocturnal apnea and oxygen desaturation stimulate the kidney to release erythropoietin, stimulating red blood cell production. In severe cases, chest x-ray and ECG may indicate right ventricular enlargement and cor pulmonale. It is wise to check the serum calcium, magnesium, potassium, and phosphate levels in patients with breathing disturbances; these electrolytes have important effects on ventilation. In the absence of concomitant lung disease, the patient with uncomplicated sleep apnea will have normal blood gases while awake. Routine pulmonary function testing should also be normal in the absence of accompanying lung disease. Patients with sleep apnea may also have cigarette-induced obstructive lung disease, or obesity-related restrictive pattern on pulmonary function testing.

It is important, however, not to ascribe abnormal spirometry to sleep apnea. Underlying lung disease should be suspected and evaluated.

Flow volume loops characteristically indicate variable extrathoracic obstruction¹⁴ or "saw tothing" on the inspiratory limb. This is thought to be due to fluttering of redundant soft tissue in the posterior oropharynx during partially obstructed inspiration.¹⁵

Definitive diagnosis and evaluation of severity of suspected sleep apnea requires a sleep study, or polysomnogram.¹⁶ During this testing procedure, the patient sleeps in the laboratory while several physiologic parameters are monitored and recorded. A sleep study must measure oronasal airflow, since apnea is defined as cessation of respiration. It should also measure respiratory effort and should document sleep. There are several methods to measure respirations: nasal thermistors, which infer air movement by sensing temperature changes; CO₂ meters, which sense respiration by measuring fluctuation of carbon dioxide percentages; laryngeal microphones, which measure breathing and snoring based on laryngeal sounds; respiratory induction plethysmography (Respirace®), in which an induction coil encircling the subject's chest and abdomen oscillates at a frequency which is proportional to the extent that it is stretched. Ways in which respiratory effort have been assessed include measuring intrathoracic pressure by means of an esophageal balloon, (obviously distasteful to most subjects), by a belly belt or pneumograph, magnetometers, strain gages, or induction plethysmography. Sleep can be assessed to some extent by simple observation, since certain behavioral characteristics, (*eg* snoring), occur during sleep. However, electroencephalography (EEG) is the most reliable method of determining, quantitating, and classifying sleep.

In addition to those parameters which must be measured in order to determine the presence of sleep apnea, there are two parameters which should be measured in order to determine severity: oxygen saturation and cardiac rhythm. The most common way of determining oxygen saturation is with an ear oximeter, which continuously measures oxygen saturation transcutaneously. Cardiac rhythms can be assessed by a one-lead ECG, or Holter monitor.

Treatment

The decision to treat the patient with documented sleep apnea depends to some extent on the type and

SLEEP APNEA—Phillips and Luce

severity of the disease. Three manifestations of sleep apnea which warrant immediate and aggressive therapy are disabling symptoms, severe repeated hypoxemia during sleep, and malignant arrhythmias. Symptomatology is the "softest" indication for therapy. Recent advances in the therapy of obstructive sleep apnea have made sleep apnea much easier to treat, but aggressive therapy of sleep apnea is not something to be taken lightly.

Cor pulmonale and pulmonary artery hypertension may develop in severe obstructive sleep apnea because of repeated hypoxemia during sleep.¹⁷ Since most patients with sleep apnea become apneic and desaturate hundreds of times a night, it is easy to see how sleep apnea can lead to cor pulmonale.¹⁸ No hard and fast rules exist as to the degree of desaturation which should prompt one to treat aggressively, but if a patient spends a significant portion of his sleeping time with an oxygen saturation below 90%, treatment is probably indicated. Patients with sleep apnea of that degree usually have serious symptoms, and frequently have cardiac arrhythmias as well.

The incidence of cardiac arrhythmias in sleep apnea is unclear. In a study in Hershey, Pennsylvania, 18 out of 23 patients with documented sleep apnea had marked sinus arrhythmia, but only two patients had heart rates less than 30 or sinus pauses longer than 1.8 seconds. One other patient had first degree and type I second degree block.¹⁹ Bradycardia to some degree probably occurs in the vast majority of sleep apneas, but in general the bradycardia is not profound.²⁰

In cases in which it is not clear whether aggressive therapy should be undertaken, it is reasonable to initially treat sleep apnea with conservative therapy. In general, conservative therapy consists of weight loss, cessation of smoking, and avoidance of alcohol and sedatives. In patients who are significantly obese, weight loss has been shown to reduce the severity of obstructive sleep apnea.¹⁰ Since patients who develop chronic bronchitis desaturate significantly and repeatedly during sleep, even in the absence of sleep apnea, physiologic evidence exists for actively discouraging those patients with sleep apnea from smoking; the development of chronic bronchitis may exacerbate their disease.³ Alcohol²¹ and flurazepam²² have both been shown to significantly increase the severity of obstructive sleep apnea and should be avoided.

Therapy of central sleep apnea is usually pharmacologic. Aminophylline, progesterone, and azetazolam-

ide have all been used with limited success,^{23,24} these agents act as respiratory stimulants. Nocturnal oxygen therapy has been shown to be useful in reducing the severity of central sleep apnea.²⁵ Patients with severe central sleep apnea who do not respond to medical therapy may require mechanical ventilation, including diaphragmatic pacing, rocking beds and chairs, and iron lungs or cuirass ventilators at night.

Therapy of obstructive and mixed sleep apnea includes medication, surgery, and a variety of devices to maintain the patency of the upper airway during sleep. Medroxyprogesterone may be efficacious in the therapy of mixed and obstructive sleep apnea.^{26,27} The standard dose is 20 mg. of medroxyprogesterone acetate orally three times a day. Protriptyline has also been useful in some cases,²⁸ while aminophylline, almitrine and acetazolamide have been tried with limited success in obstructive apnea. Supplemental oxygen definitely improves arterial oxygen saturation, improves the quality and duration of sleep, and reduces apnea-associated dysrhythmias.^{29,30} Oxygen probably ameliorates sleep apnea by reducing the effect of severe hypoxemia as a central respiratory depressant.

The standard therapy of obstructive and mixed sleep apnea for several years has been tracheostomy. Results of tracheostomy in sleep apnea are impressive; it is definitely an effective therapy, but is not without physical and social morbidity.^{31,32} A new, relatively simple and less disfiguring surgical technique, uvulopalatopharyngeoplasty (UVPP), has been developed.^{33,34,35}

Non-surgical, non-medical attempts to treat obstructive sleep apnea include nocturnal continuous positive airway pressure (CPAP) and the tongue retaining device (TRD). Sullivan and his group in Australia have reported excellent results with nasal CPAP in obstructive sleep apnea³⁶ but other reports have been contradictory.³⁷ The tongue retaining device,³⁸ which resembles an oral airway, is still considered as an investigational device by the FDA, but has been preliminarily found useful in reducing the severity and frequency of obstructive sleep apnea.

The University Of Kentucky Experience

In our laboratory at the University of Kentucky, we measure airflow with thermistors and a capneograph, respiratory effort by a pneumograph attached to a pressure transducer, sleep presence and stage by a four or six channel EEG, EMG and EOG, cardiac rhythm with a single lead ECG, and oxygen saturation with an ear

SLEEP APNEA—Phillips and Luce

oximeter. Sleep is defined and staged as described by Rechtschaffen.³⁹ All parameters are recorded on a 16-channel polygraph (Grass 78). Studies are usually performed in the morning on sleep-deprived individuals and last approximately four hours.

Between August 1982 and October 1983 we performed 55 studies on 51 patients (Table II). Thirty-six of those studied were men, of whom 20 had sleep-related breathing disorders. Fifteen studies were on women, and four of these were positive. The ages of our patients ranged from three months to 78 years. Of the positive studies in 24 patients, 12 had obstructive sleep apnea, three had central sleep apnea, seven had mixed sleep apnea, and two had severe hypopnea (Table III). Comparison of oxygen saturation in those with and without sleep disordered breathing demonstrated no significant differences in the two groups in the waking or baseline sleeping state, indicating that nocturnal oximetry studies and resting blood gases are not useful in distinguishing between patients with sleep apnea and those without. Patients without sleep-disordered breathing had a mean lowest oxygen saturation of 85.6%, while those with sleep disordered breathing desaturated to a mean lowest level of 76.6%.

Serious cardiac arrhythmias have been rare in our lab, but we have documented two cases of ventricular tachycardia and one case of sinus arrest lasting four seconds.

Because of the morbidity and social disability associated with long-term tracheostomy, we have been offering uvulopalatopharyngoplasty to our patients who have clinically significant mixed or obstructive sleep apnea.

The goals of palatopharyngoplasty are to eliminate the tendency of the oral pharynx to obstruct the airway, yet not create the problems of nasal regurgitation and hypernasal speech. The operation is performed with general anesthesia with oral endotracheal intubation. The Dingman mouth retractor, also used for cleft palate repair, retracts the tongue and endotracheal tube inferiorly and buccal cavity laterally. Vasoconstriction of the soft palate and lateral pharyngeal walls is obtained with 1:100,000 Epinephrine. The initial incision splits the uvula and continues anteriorly in the midline of the soft palate for a distance of 1.5 cm. An incision then extends transversely from that point on the oral side of the soft palate across that structure laterally and onto the anterior tonsillar pillar. The incision is then deepened through the soft palate to the nasal side. With

traction the tissue is excised from medially to laterally, extending the excision onto the posterior tonsillar pillar and lateral pharyngeal wall. In this manner, approximately 2/3 of the tonsillar fossa is excised and the posterior tonsillar pillar incision intersects that of the anterior tonsillar pillar. At that apex of the two incisions, a 4.0 Vicryl^{RT} suture is placed and a running closure is performed from lateral to medial to the midline of the soft palate.

Attention is then directed to a similar procedure and excision of the other hemi-soft palate. Closure is also performed, reapproximating posterior to anterior pillar, obliterating the tonsillar fossa and further medially, nasal mucosa to oral mucosa of the soft palate, again ending at the midline of the soft palate.

The endotracheal tube remains for 24 hours postoperatively. The patient is then extubated and observed in an intensive care setting for an additional 24 hours. Oral liquids are begun after extubation: an average length of postoperative stay has been four days.

Three patients have undergone this procedure at the University of Kentucky to date. One did not have a follow-up sleep study but was symptomatically improved and has a marked positive change in personality. Two other such patients did have follow-up sleep studies after uvulopalatopharyngoplasty. Both were improved symptomatically and objectively following surgery. One patient, who preoperatively had greater than 40 apneas and hypopneas per hour (some lasting as long as 85 seconds and associated with oxygen desaturation in the 40% range), had only four apneas per hour, with a lowest oxygen saturation of 73% postoperatively. The other patient had no apneas and rare hypopneas, with a low oxygen saturation of 77% after surgery, compared with nine apneas or hypopneas per hour and a lowest oxygen saturation of 59% preoperatively. Interestingly, snoring persisted in both patients after UVPP. No patient to date has had nasal regurgitation or change of speech.

Although our awareness of the sleep apnea syndrome is relatively recent, sleep-related breathing disorders have probably been a common cause of morbidity and mortality for years.⁴⁰ The prognosis of the disorder obviously depends on its severity and whether it is detected and treated. In patients with obstructive sleep apnea associated with severe hypoxemia or arrhythmias, death during sleep because of asphyxiation or dysrhythmias can occur. Those of us who care for patients on a daily basis need to expand our differential

SLEEP APNEA—Phillips and Luce

diagnosis of snoring, marital discord, insomnia, personality changes, headache, daytime drowsiness, and unexplained pulmonary artery hypertension or cor pulmonale to include sleep-disordered breathing.

References 1. Burwell CS, Robin ED, Whaley RD, Bickelman AG: Extreme obesity associated with alveolar hypoventilation: a Pickwickian syndrome. *Am J Med* 21:811-818, 1956. 2. Tobin MJ, Cohn MA, Sackner MA: Breathing abnormalities during sleep. *Arch Intern Med* 143:1221-1228, 1983. 3. Catterall JR, Douglas NJ, Calverly PM, et al.: Transient hypoxemia during sleep in chronic obstructive lung disease is not a sleep apnea syndrome. *Am Rev Respir Dis* 128:24-29, 1983. 4. Bohlman ME, Haponik EF, Smith PL, et al.: CT demonstration of pharyngeal narrowing in adult obstructive sleep apnea. *AJR* 140:543-548, 1983. 5. Wilms D, Popovich J, Fujita S, et al.: Anatomic abnormalities in obstructive sleep apnea. *Ann Otol Rhinol Laryngol* 91:595-598, 1982. 6. Longobardo GS, Gothe B, Goldman MD, and Cherniak NS: Sleep apnea considered as a control system instability. *Respiration Physiology* 50:311-333, 1982. 7. Guilleminault C, Tilkian A, and Demert WC: The sleep apnea syndromes. *Annu Rev Med* 27:465-484, 1976. 8. Guilleminault C, Cumiskey J, Dement WC: Sleep apnea syndromes: Recent advances. *Adv. Intern Med* 26:347-372, 1980. 9. Harmon E, Wynne JW, Block AJ, and Louie MF: Sleep-disordered breathing and oxygen desaturation in obese patients. *Chest* 79:3, 256-260, 1981. 10. Harmon EM, Wynne JW, Block AJ: The effect of weight loss on sleep-disordered breathing and oxygen desaturation in morbidly obese men. *Chest* 82:3, 291-294, 1982. 11. Sandblom RE, Matsumoto AM, Schoene RB, et al.: Obstructive sleep apnea syndrome induced by testosterone administration. *N Engl J Med* 308:508-10, 1983. 12. Skatrud J, Iber C, Ewart R: Disordered breathing during sleep in hypothyroidism. *Am Rev Respir Dis* 124:325-329, 1981. 13. Phillipson EA: Breathing disorders during sleep. *Basics of RD* Vol. 7:1-6, January, 1979. 14. Haponik EF, Bleecker ER, Allen RP, Smith PL, Kaplan J: Abnormal inspiratory flow volume curves in patients with sleep-disordered breathing. *Am Rev Respir Dis* 124:571-574, 1981. 15. Sanders MH, Martin RJ, Pennock BE, Rogers RM: The detection of sleep apnea in the awake patient. *JAMA* Vol. 245, No. 23:2411-2418, 1981. 16. Haponik EF, Smyth PL, Bleecker ER: Diagnosis of obstructive sleep apnea: Is polysomnography necessary? *Chest* 84:3:354, 1983 (abstract). 17. Block AJ, Boysen PG, Wynn JW: The origins of cor pulmonale: an hypothesis. *Chest* 75:109-110, 1979. 18. Tirlapur VG, Mir MA: Nocturnal hypoxemia and associated electrocardiographic changes in patients with chronic obstructive airways disease. *N Engl J Med* 306:3:125-130, 1982. 19. Miller WP: Cardiac arrhythmias and conduction disturbances in the sleep apnea syndrome. *Am J Med* 73:317-321, 1982. 20. Zwillich C, Devlin T, White D, et al.: Bradycardia during sleep apnea. *J Clin Invest* 69:1286-1292, 1982. 21. Dolly FR, Block AJ: Increased ventricular ectopy and sleep apnea following ethanol ingestion in COPD patients. *Chest* 83:3, 429-469, 1983. 22. Dolly FR, Block AJ: Effect of flurazepam on sleep-disordered breathing and nocturnal oxygen desaturation in asymptomatic subjects. *Am J Med* 73:239-243, 1982. 23. Sutton FD, Zwillich CW, Creagh C, Pierson DJ, Weil JV: Progesterone for outpatient treatment of Pickwickian syndrome. *Ann Int Med* 83:476-479, 1975. 24. White DP, Zwillich CW, Pickett CK, Douglas NJ, Findley LJ, Weil JV: Central sleep apnea. Improvement with acetazolamide therapy. *Arch Intern Med* 142:1816-1819, 1982. 25. McNicholas WT, Carter JL, Rutherford R, Zamel N, Phillipson EA: Beneficial

effect of oxygen in primary alveolar hypoventilation with central sleep apnea. *Am Rev Respir Dis* 125:773-775, 1982. 26. Orr WC, Innes NK, Martin RJ: Progesterone therapy in obese patients with sleep apnea. *Ann Intern Med* 139:109-111, 1979. 27. Strohl KP, Hensley MJ, Saunders NA, Scharf SM, Brown R, Ingram RH: Progesterone administration and progressive sleep apnea. *JAMA* 245:12, 1230-1232, 1981. 28. Brownell LG, West P, Sweatman P, Acres JC, Kryger MH: Protriptyline in obstructive sleep apnea. *N Engl J Med* 307:17, 1038-1042, 1982. 29. Martin RJ, Sanders MH, Gray BA, Pennock BE: Acute and long-term ventilatory effects of hyperoxia in the adult sleep apnea syndrome. *Am Rev Respir Dis* 125:175-180, 1982. 30. Kearley R, Wynne JW, Block AJ, Boysen PK, Lindsey CM: The effect of low flow oxygen on sleep-disordered breathing and oxygen desaturation. *Chest* 78:5, 682-685, 1980. 31. Conway WA, Victor LP, Magilligan DJ, Fujita S, Zorick FJ, Roth T: Adverse effects of tracheostomy for sleep apnea. *JAMA* 246:4, 347-350, 1981. 32. Walsh RE, Michaelson ED, Harklewood LE, et al.: Upper airway obstruction in obese patients with sleep disturbance and somnolence. *Ann Intern Med* 76:185-192, 1972. 33. Borowiecki BD, Sassini JF: Surgical Treatment of Sleep Apnea. *Arch Otolaryngol* 109:508-512, 1983. 34. Simmons FB, Guilleminault C, Silvestri R: Snoring and some obstructive sleep apnea can be cured by oropharyngeal surgery. *Arch Otolaryngol* 109:503-507, 1983. 35. Hernandez SF: Palatopharyngoplasty for the obstructive sleep apnea syndrome. *Am J Otolaryngol* 3:4, 229-234, 1982. 36. Sullivan CE, Issa FG, Berth-Jones M, Eves L: Reversal of obstructive sleep apnea by continuous positive airway pressure applied through the nares. *Lancet* 1:862-865, 1981. 37. Wagner DR, Pollak CP, Weitzman ED: Nocturnal nasal-airway pressure for sleep apnea. *N Engl J Med* 308:461-462, 1983. 38. Cartwright RD, Samelson CF: The effects of a nonsurgical treatment for obstructive sleep apnea. The tongue-retaining device. *JAMA* 248:705-709, 1982. 39. Rechtschaffen A, Kales A Ed: A manual of standardized terminology techniques and scoring system for sleep stages of human subjects, Bethesda: National Institute of Neurological Disease and Blindness, 1968 (NIH publication N204). 40. Orr, WC: Sleep-related breathing disorders, an update. *Chest* 84(4):475-480, 1983.

From the Department of Medicine, University of Kentucky Medical Center and Division of Plastic Surgery, University of Kentucky Medical Center.

We've been defending doctors since these were the state of the art.



Turn of the century
trephine for cranial surgery
and tonsillotome for
removing tonsils.

These instruments were the best available at the turn of the century. So was our professional liability coverage for doctors. In fact, we pioneered the concept of professional protection in 1899 and have been providing this important service exclusively to doctors ever since.

You can be sure we'll always offer the most complete professional liability coverage you can carry. Plus the personal attention and claims prevention assistance you deserve.

For more information about Medical Protective coverage, contact your Medical Protective Company general agent.

NICE

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

Charles E. Foree, Suite 103B, 152 East Reynolds, Lexington, Kentucky 40502, 606/272-9124
Donald G. Greeno, Suite 104, Shelbyville Office Mall, Louisville, Kentucky 40207, 502/895-5501



**as one physician
to another. . .**



**“Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?”**



Kentucky Medical Insurance Company


Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company · P.O. Box 35880 Louisville, Ky. 40232

TOLL FREE 1-800-292-1858 · Louisville Area 459-3400

BUILD A BETTER COMMUNITY WITH YOUR BARE HANDS.

 **United Way**

I Care!

When you give to United Way, your money works for you at home. It goes into community services for the elderly, local youth programs and foster care.

It also helps you run blood banks and facilities for the physically handicapped.

In fact, your donation helps provide literally hundreds of services that make life a lot better for people in your town.

So when your United Way volunteer comes around, be generous.

A better community is in your hands.



United Way
THANKS TO YOU IT WORKS
FOR ALL OF US.

**On nitrates,
but angina still
strikes...**



After a nitrate, add ISOPTIN[®] (verapamil HCl/Knoll)

To protect your patients, as well as their quality of life,
add Isoptin instead of a beta blocker.

First, Isoptin not only reduces myocardial oxygen demand by reducing peripheral resistance, but also increases coronary perfusion by preventing coronary vasospasm and dilating coronary arteries — both normal and stenotic. These are antianginal actions that no beta blocker can provide.

Second, Isoptin spares patients the beta-blocker side effects that may compromise the quality of life.

With Isoptin, fatigue, bradycardia and mental depression are rare. Unlike beta blockers, Isoptin can safely be given to patients with asthma, COPD, diabetes or peripheral vascular disease. Serious adverse reactions with Isoptin are rare at recommended doses; the single most common side effect is constipation (6.3%).

Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

So, the next time a nitrate is not enough, add Isoptin... for more comprehensive antianginal protection without side effects which may cramp an active life style.



**ISOPTIN. Added
antianginal protection
without beta-blocker
side effects.**

ISOPTIN[®] TABLETS

(verapamil HCl/Knoll)
80 mg and 120 mg

Contraindications: Severe left ventricular dysfunction (see *Warnings*), hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction <30%) or moderate to severe symptoms of cardiac failure. Control milder heart failure with optimum digitalization and/or diuretics before ISOPTIN is used. ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild, and controlled by decrease in ISOPTIN dose). Occasional elevations of liver enzymes have been reported; patients receiving ISOPTIN should have liver enzymes monitored periodically. Patients with atrial flutter/fibrillation and an accessory AV pathway (e.g., W-P-W or L-G-L syndromes) may develop a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion. AV block may occur (3rd degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema, and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with ISOPTIN.

Precautions: ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, patients should be monitored closely. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function or in patients who have also recently received methyldopa. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patient carefully monitored. ISOPTIN may have an additive hypotensive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. **Pregnancy Category C:** There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use.

Adverse Reactions: Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR<50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%). The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: confusion, paresthesia, insomnia, somnolence, equilibrium disorders, blurred vision, syncope, muscle cramps, shakiness, claudication, hair loss, maculae, and spotty menstruation. Overall continuation rate of 94.5% in 1,166 patients. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in 80 mg and 120 mg sugar-coated tablets. July 1982 2068



KNOLL PHARMACEUTICAL COMPANY
30 NORTH JEFFERSON ROAD, WHIPPANY, NEW JERSEY 07981

2195

TRUTH

When the North Atlantic Treaty Organization was formed in 1949, it was formed for one reason. To stop Soviet aggression in Europe.

TRUTH

The Warsaw Pact's conventional fighting capabilities far exceed that of European NATO forces.

TRUTH

In order to maintain peace and freedom in Europe, NATO has effectively maintained a policy of deterrence with the Soviet Union.

TRUTH

The past 35 years of peace have been one of the longest periods of European peace in recorded history.

TRUTH

The Soviets will not risk war. Unless they are sure they can win.

NATO.

**We need your support.
And the truth is, you need ours.**



A public service message from this magazine and the Advertising Council.

Tumors of the Mediastinum

GARY F. EARLE, M.D.

Mediastinal tumors are rare when compared to other neoplasms of the thorax but they do present as a diagnostic and surgical challenge due to their location. This review was prompted by several recent mediastinal tumors on our cardiothoracic service.

Anatomy

The mediastinum is defined by several anatomical boundaries. Superiorly, the mediastinum begins at the thoracic inlet and inferiorly is bounded by the diaphragm. The lateral extensions are the mediastinal pleura in either hemithorax. The vertebral column is the most posterior limit, with the sternum and costal cartilages the anterior boundary.¹

The mediastinum is subdivided into four anatomical compartments with a clinical correlation to each compartment. The superior compartment is located under the manubrium and extends to the level of the fourth thoracic vertebra. The anterior compartment is located anterior to the heart and trachea. The middle or visceral compartment contains the pericardium, heart and trachea at its bifurcation. The posterior compartment includes the area surrounding the vertebral gutter.²

General Information

Most tumors of the mediastinum are benign in both children and adults, occurring in approximately two-thirds of the cases for each group.³ However, children are more often symptomatic when the mediastinal mass is discovered due to the smaller compartment size and greater ease of compression of surrounding structures. When symptoms occur in adults, a malignant process is most often present. The major symptoms in children are dyspnea and dysphagia secondary to tracheal and esophageal compression respectively. In adults, symptoms include pain, fever, superior vena cava syndrome, or Horner's Syndrome.^{2,4}

Occasionally, hormonal activity is present from the tumor and specific clinical signs or systemic symptoms develop. Classic examples are hypertension and flushing with mediastinal pheochromocytomas or gynecomastia with nonseminomatous germ cell tumors of the

mediastinum. Systemic diseases such as myasthenia gravis or Cushing's Syndrome with an associated thymoma may be present.

Neurogenic Tumors

Neurogenic tumors are the most common mediastinal tumors in children and adults. In most series they comprise approximately 30% of all mediastinal tumors.^{4,5,6} Their usual location is in the posterior mediastinum. In adults the majority are benign while in children over 50% are malignant. The tumors are classified into two separate groups: nerve cell or nerve sheath origin.²

The most common neurogenic tumor of nerve cell origin is a neuroblastoma and it is usually seen in children under the age of three. The tumor is very malignant and may outgrow its blood supply and form areas of necrosis and calcification visible on chest roentgenogram. Rare reports have documented spontaneous regression of the tumor.⁷ Approximately 90% of neuroblastomas are hormonally active with epinephrine or norepinephrine being the major substances secreted.² Diagnosis can usually be made by measuring vanillylmandelic acid (VMA), the byproduct of catecholamine metabolism, in elevated levels in the urine.⁸ A major differential diagnosis is pheochromocytoma which also produces excessive catecholamines. In addition to catecholamine secretion, a neuroblastoma may secrete vasoactive intestinal peptide (VIP) and produce a syndrome of abdominal distension and diarrhea.^{9,10}

The preferred treatment is surgical resection, however, usually tumor must be left behind and combination chemotherapy and irradiation is useful. Cyclophosphamide (Cytoxan), Adriamycin, and Vincristine are the drugs of choice. Prognosis is nearly 90% survival when the disease is found in children under one year of age.²

Pheochromocytomas in the thorax are very rare, comprising only 1% of all pheochromocytomas. They are usually hormonally active with elevated end products of epinephrine and norepinephrine in the urine. The tumor is usually very vascular and the pleura tends to bleed at great distances from the mass itself. Surgical

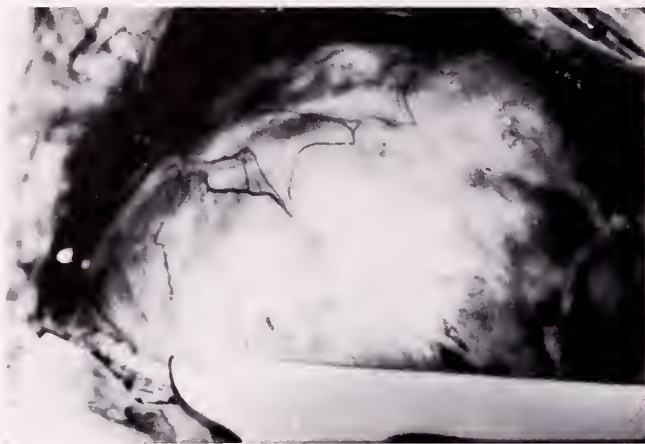


Fig. 1. This mediastinal teratoma was discovered in a 7 month old infant with respiratory distress. The tumor filled the entire right hemithorax. The tumor was attached to the anterior mediastinum by a small vascular pedicle.

resection is the treatment. Paraganliomas or chemodectomas are very rare and chemically inactive, but they are usually in close association to major blood vessels and may be unresectable. Radiation may offer some palliation in these situations.²

Neurofibromas and neurilemmomas are the benign tumors of nerve sheath origin. Neurofibromas are often seen with vonRecklinghausen's disease. Malignant degeneration is found in approximately 10% of the cases, and is classified as a malignant schwannoma or neurogenic sarcoma.¹

A special consideration regarding neurogenic tumors is the so called "dumbbell" tumors. These tumors have an intraspinal and paravertebral component. This condition should be suspected if a vertebral pedicle is eroded or the intervertebral foramen is enlarged. Pain or neurological symptoms occur over 50% of the time. The preoperative diagnosis of a "dumbbell" tumor is confirmed by a CT scan or myelogram. When such a tumor is found, a single stage two team combined posterior approach is advocated with neurosurgery.¹¹

Thymomas

Thymomas are the second most common mediastinal tumor. These tumors occur almost exclusively in adults and are located in the anterior mediastinum. Over 60% are benign and malignancy is an operative finding rather than a pathological diagnosis when the tumor shows invasion of surrounding structures such as pericardium, lung and blood vessels. A wide variety of clinical conditions may be associated with thymomas such as myas-

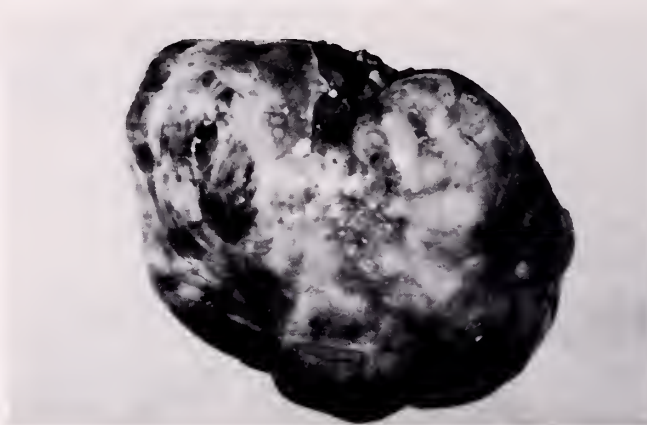


Fig. 2. The tumor weighed 340 grams. Microscopically, the tumor contained immature elements of all three germ layers. Of special significance was a large number of pancreatic islet cells resulting in clinical hypoglycemia pre-operatively which resolved after removal of the mass.

thenia gravis, Cushing's Syndrome or red blood cell aplasia.¹

The association of patients with a thymoma and myasthenia gravis is between 20 and 40% and deserves special mention. The apparent association of the thymic gland to myasthenia gravis is an acetylcholine receptor site antibody causing a block at the motor end plate with resultant muscle weakness. Ironically, those patients with myasthenia gravis who do not have a thymoma do better than those patients with a thymoma. The remission rate is only 10% with patients having a thymoma in contrast to 60% in those patients without a thymoma. The surgical approach is a median sternotomy in order to resect all thymic tissue within the mediastinum to avoid recurrences.¹²

Teratomas

Mediastinal teratomas are the third most common tumor and are usually located in the anterior mediastinum. (Fig. 1 & Fig. 2) Usually all three germ layers (ectoderm, mesoderm, and endoderm) are present. Most are benign, but the rare malignant lesion usually can be detected preoperatively by elevated carcinoembryonic antigen or alpha-fetoprotein levels. Treatment is surgical resection and irradiation may be helpful in malignant lesions that cannot be totally resected.²

Germ Cell Tumors

Extra gonadal germ cell tumors are usually found in the anterior mediastinum and are of two general types: seminomas and non-seminomatous cell types. The sem-

inomas are usually found in adult males between 20 and 40 years of age and are hormonally inactive. The primary treatment is surgical resection with radiation utilized for residual tumor. Extrathoracic metastases are managed with combination X-ray therapy and chemotherapy. Non-seminomatous germ cell tumors are very malignant with average survival of six months after diagnosis.² They usually secrete hormonally active substances such as gonadotropin resulting in gynecomastia in males. New clinical trials with chemotherapy regimens seem to be offering improved survival rates.

Lymphomas

Primary lymphoma of the mediastinum is not a rare occurrence and is usually located in the anterior compartment. The two major classifications are the lymphosarcomas and Hodgkin's disease. As with lymphomas elsewhere, the prognosis depends on cell type, patient's age, and stage of the disease. Localized lymphoma confined to the mediastinum is best treated by surgical excision and irradiation with chemotherapy. Five year survival rates of 40% can be expected for Hodgkin's disease and 15% for lymphosarcoma.¹³

Miscellaneous Tumors

A host of other tumors occur rarely in the mediastinum. Thyroid adenomas can occur in the anterior mediastinum. They usually do not produce symptoms and are hormonally inactive. The blood supply arises from vessels in the mediastinum and not cervical vessels. In contrast, a substernal extension of a cervical goiter derives its blood supply from the usual vascular supply of the thyroid. Parathyroid adenomas can occur in the mediastinum, most often the anterior compartment. They are usually hormonally active.² Vascular and lymphatic tumors along with lymphomas, myxomas, and mesotheliomas occur with rare frequency in the mediastinum. Surgical excision is indicated for diagnosis and treatment.

Summary

Tumors of the mediastinum are usually benign and relatively asymptomatic in adults. Symptoms of airway, esophageal or vascular compression from mediastinal tumors occur more frequently in infants and children than adults. Location of the mass by chest X-ray and CT scan is usually helpful in making the diagnosis and planning the surgical approach. Definitive diagnosis and treatment most often necessitates surgical intervention.

Adjuvant X-ray therapy or chemotherapy improves survival rates in patients with malignant tumors.

References 1. Sabiston DC, Jr.: *Gibbon's Surgery of the Chest*. 4th edition. Philadelphia: W.B. Saunders; 1983. 407-436. 2. Shields TW: *General Thoracic Surgery*. 2nd edition. Philadelphia: Lea and Febiger; 1983. 927-954. 3. Wychulis AR, Payne WS, Clagett OT, Woolner LB: Surgical treatment of mediastinal tumors. A 40 year experience. *J Thorac Cardiovasc Surg* 62: 1971. 379-392. 4. Heuer GJ, Andrus WD: The surgery of mediastinal tumors. *Am J Surg* 50: 1940. 146-224. 5. Grosfeld JL, Weinberger M, Kilman JW, Chatworthy HW Jr.: Primary mediastinal neoplasms in infants and children. *Ann Thorac Surg* 12: 1971. 179-190. 6. Sabiston DC, Jr., Scott HW, Jr.: Primary neoplasms and cysts of the mediastinum. *Ann Surg* 136: 1952. 777-797. 7. Gross RE, Farber S, Martin LW: Neuroblastoma sympatheticum; a study and report of 217 cases. *Pediatrics* 23: 1959. 1179-1191. 8. Ravitch MM, Welch KJ, Benson CD, Aberdeen E, Randolph JC: *Pediatric Surgery* 3rd edition. Chicago: Year Book Medical Publishers, Inc.; 1979. 1082-1095. 9. Green M, Cooke RE, Luttanzi W: Occurrence of chronic diarrhea in three patients with ganglioneuroma. *Pediatrics* 23: 1959. 951-955. 10. Swift TGF, Bloom SR, Harris F: Watery diarrhea and ganglioneuroma with secretion of vasoactive intestinal peptide. *Arch Dis Child* 50: 1975. 896-899. 11. Akwaii OE, Payne WS, Orofrio BM, Dines DE, Muhm JF: Dumbell neurogenic tumors of the mediastinum. Diagnosis and management. *Mayo Clin Proc* 53: 1978. 353-358. 12. Wechsler AS, Olanow CW: Myasthenia gravis. *Surg Clin North Am* 60: 1980. 931-945. 13. vanHeerden JA, Harrison EG, Jr., Bernatz PE, Kiely JM: Mediastinal malignant lymphoma. *Chest* 57: 1970. 518-529.

From the Division of Cardiovascular & Thoracic Surgery, University of Kentucky Medical Center, 800 Rose Street, MN 278, Lexington, Kentucky 40536.

Roche salutes the history of Kentucky medicine

THE DOCTOR WHO PIONEERED ABDOMINAL SURGERY



Dr. Ephraim McDowell

In 1795, Dr. Ephraim McDowell of Virginia settled in the village of Danville, Kentucky. His practice took him on horseback over hundreds of miles of wilderness.

Nevertheless, his reputation as a skillful and successful surgeon spread—especially for lithotomies, which he performed 22 times without losing a patient.¹

First ovariectomy

McDowell's true moment in history came in 1809, when he performed the first known ovariectomy for removal of a tumor from Jane Crawford, then 47. The procedure was completed in 25 minutes, and Mrs. Crawford not only recovered but lived to age 78.^{1,2}

This landmark surgery was performed under the most primitive conditions—without anesthesia or anti-

sepsis—while, the story is told, brave Mrs. Crawford distracted herself as best she could by singing hymns.²

His published reports of this case, along with two others in 1817 and an additional two in 1819, established Dr. McDowell as the physician who saved women afflicted with ovarian disease from their previously hopeless situation and, further, marked the beginning of abdominal surgery.¹ To European medical practitioners, Dr. McDowell's accomplishments offered clear evidence that medicine was coming of age in America.³

References: 1. Garrison FH. *An Introduction to the History of Medicine*, 4th ed. Philadelphia, W B. Saunders Company, 1929, pp 507-508. 2. Pockford FR. *History of Medicine in the United States*, vol II. New York, Hafner Publishing Company, 1963, pp 727-728. 3. Shaffel N. The evolution of American medical literature, in *History of American Medicine*, edited by Marti-Ibáñez F, New York, MD Publications, 1959, p 106.



When the history reveals mixed depression and anxiety...

For the estimated 70 percent of nonpsychotic depressed patients who are also anxious,¹ Limbitrol provides both amitriptyline, specific for symptoms of depression, and the effects of Librium® (chlordiazepoxide HCl/Roche), the tested and dependable anxiolytic. Limbitrol is, therefore, a better choice for these patients than dual agents that contain a phenothiazine, a class of antipsychotic drugs which has been associated with tardive dyskinesia.

62% of Overall Improvement...Within the First Week

Limbitrol also has a rapid onset of action which may lead to greater patient compliance. In a multicenter study, patients taking Limbitrol experienced 62% of their overall improvement within the first week of therapy.²

In another multicenter study,³ the following symptoms associated with anxious depression were significantly reduced during the first two weeks of therapy:

- ☐ Headache—79%
- ☐ Early insomnia—91%
- Middle insomnia—87%
- Late insomnia—89%
- ☐ Gastrointestinal upset—73%

In two multicenter studies, only 1.9% of Limbitrol patients experienced cardiovascular side effects.³

Patients should be cautioned about the combined effects with alcohol or other CNS depressants and about activities requiring complete mental alertness such as operating machinery or driving a car.

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME; New York, Appleton-Century-Crofts, 1977, p 316. 2. Feighner JP *et al*: *Psychopharmacology* 61:217-229, Mar 1979. 3. Data on file, Hoffmann-La Roche Inc., Nutley, NJ.

In moderate depression and anxiety

Limbitrol®

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

LIMBITROL® Tablets (Tranquilizer-Antidepressant)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, block tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. IV administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h/s* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, Prescription Paks of 50.

**General Leasing
Company of Kentucky**

Professional Transportation Management

**We administer your
physician's lease plan.**

**We lease all makes —
everywhere.**



121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383



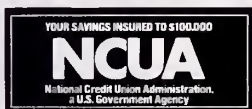
ROCHE PRODUCTS INC
Manatí, Puerto Rico 00701

"The Doctors' Bank"

KMA Physicians Financial Services — a Federal Credit Union — is less than two years old. But we're already being called "The Doctors' Bank."

Why? Because only KMA members, their families, their employees and P.S.C.s are eligible to enjoy the many benefits offered by this full-service financial institution. **No one else is eligible!**

As a KMA member, you can take advantage of the high return on your investment dollars, low interest loans and many free services offered by "The Doctors' Bank." Find out how you can benefit from membership in KMA-PFS. Call our office nearest you, or mail in this coupon today. (Be sure to indicate the areas you want to know more about.)



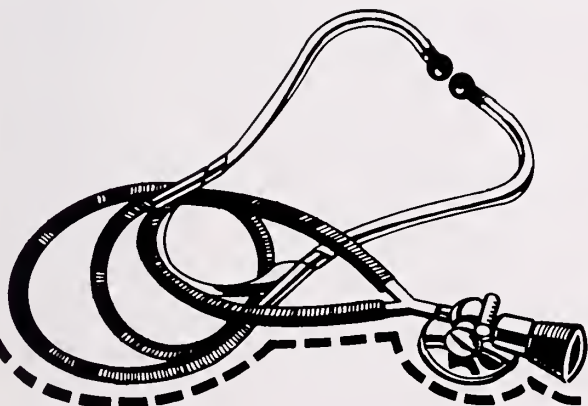
FEDERAL CREDIT UNION

- ☐ Investments (Long and short term savings accounts, IRAs, Keoghs)
- ☐ Interest-drawing checking accounts with overdraft protection
- ☐ VISA and MasterCard — No Fee
- ☐ Low interest loans — including substantial personal line of credit
- ☐ Payroll deduction programs and direct deposit plans
- ☐ All of the above and more!

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____



KMA Physicians Financial Services

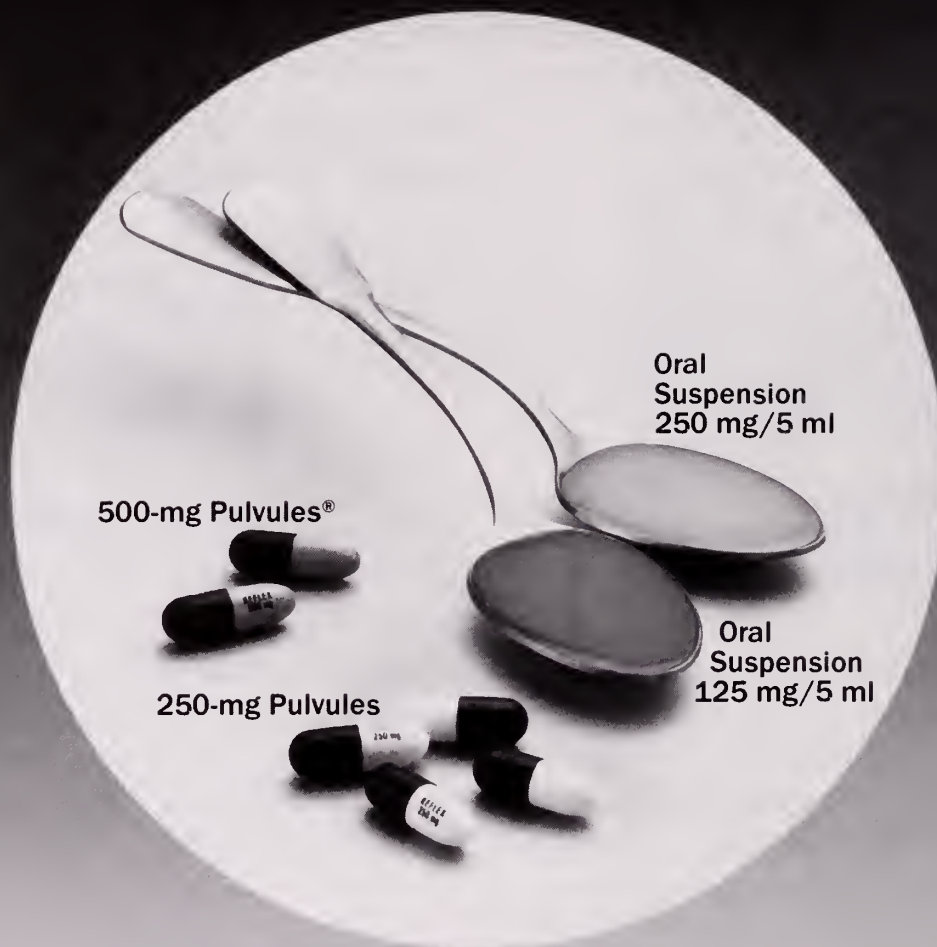
Toll Free: 1-800-292-1999

Main Office: KMA Building, 3532 Ephraim McDowell Drive
Louisville, KY 40205 (502) 459-9099

Medical Center Office: Medical Towers South, Suite 166
Louisville, KY 40202 (502) 581-1335

Bluegrass Office: 330 Waller Avenue
Lexington, KY 40504 (606) 278-2263

Easy To Take



Keflex[®]
cephalexin

Additional information
available to the profession
on request.



420113

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

KENTUCKY MEDICAL ASSOCIATION ANNUAL MEETING

SPORTS MEDICINE ON AUDIO CASSETTE

SCIENTIFIC PROGRAM

- _____ Tape 1: Tuesday Morning General Session —
°Use of Local Anesthesia in Acute Injuries °Special Considerations
for the Female Athlete Menses & Pregnancy °Pre-Season Sport Ex-
ams for Children & Adolescents °Cerebral Concussion °Heat Disor-
ders in Athletes °Genito-Unary Tract Athletic Injuries °Asthma &
The Athlete
- _____ Tape 2: Wednesday Morning General Session —
°Emotional Aspects of Training °Initial Care of Selected Sports Emer-
gencies °Athletic Injuries to the Hand °The Diagnosis of Knee Injuries
in Athletes °Sudden Death in the Healthy Athlete °Ankle Injuries °Newer
Equipment & Methodology in Prevention of Sports Injuries
- _____ Tape 3: Wednesday Afternoon General Session —
°Preparing the Athlete for Competition °Involvement of KMA Com-
mittee of School Health, Physical Education and Medical Aspects of
Sports in Kentucky High School Athletic Programs
- _____ Tape 4: Thursday Morning General Session —
° The Use of Beta Blockers in the Exercising Patient °Diagnosis of
Ligamentous Injuries of the Knee °Prevention of Eye Injuries in the
Athlete °Adolescent Heart Murmurs in Sports °Oxygen Metabolism
in Phagocytes: Prospects for Therapeutic Manipulation °Intestinal
Gas °Selected Cutaneous Signs of Systemic Disease
- _____ Tape 5: **House of Delegates** (1st meeting)
- _____ Tape 6: **House of Delegates** (2nd meeting)
- _____ Tape 7: Luncheon Speaker — **Joseph F. Boyle, M.D.**
- _____ Tape 8: House of Delegates address — **Joseph F. Boyle, M.D.**

PRICE SCHEDULE: \$11.00 per tape #1 thru #6
7.00 tape #7, #8

Mail Orders add **75¢ PER TAPE** for postage & handling.

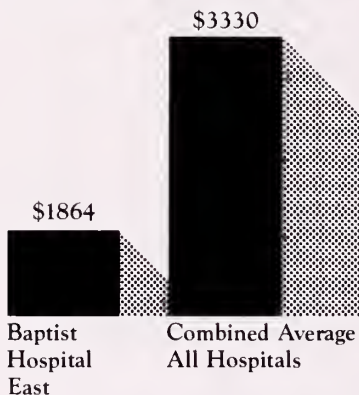
Make checks payable to:

CONVENTION RECORD, 809 Glenbarr Place, Louisville, KY 40243 Ph. 502-245-3628

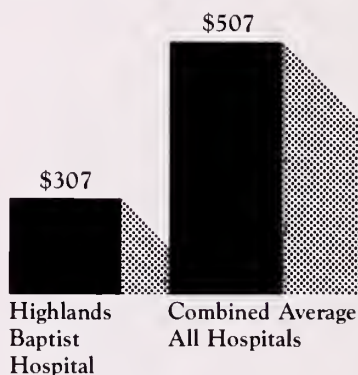
[Tape availability subject to authorization to record by speakers.]

Look at the spot we're in.

Average Cost per Case
in Louisville Hospitals*



Average Cost per Day
in Louisville Hospitals*



In the latest Blue Cross/Blue Shield rankings, Baptist Hospital East had the lowest average cost per case of all Louisville hospitals. What's more, Highlands Baptist Hospital had the lowest average charge per day. The Baptist Hospitals in Louisville made that impressive record in Blue Cross/Blue Shield's 1983 report of comparison charges for Louisville hospitals.

With their broad range of resources and services, Highlands Baptist

Hospital and Baptist Hospital East together have built a reputation for the kind of high quality, family-centered care you've come to expect.

When you combine high quality health care with lower costs, everybody benefits. What's more, our record proves that the combination works.

Now, aren't the Baptist Hospitals in Louisville in the kind of spot you'd like your health care facilities to be?



BAPTIST • HOSPITALS • INC.

A growing tradition

*Based on Blue Cross/Blue Shield Louisville Hospital Charge Comparison 3/27/84

Book Reviews

Basic and Clinical Immunology

DP Stites, JD Stobo, HH Fudenberg, JV Welb

Lange Medical Publication, 5th edition, 1984

If any medical field needs current review, Immunology gets the nod. A burgeoning literature with contributions from basic science, biochemistry, biophysics, from morphologists to physiologist, from surgeons and non-surgeons, and from all specialties make such a review an enormous task. In fact, this particular paperback has expanded significantly since its inception eight years ago, out of necessity. Most contributors are still in the University of California/Stanford sector but some dissemination of both leaders and their followers has widened the geographic distribution of authorship.

Division of the book is tripartite. Initially basic immunology—a core review—is given. Lymphocytes—T and B Cells—are elevated to having their own chapter, in respect to the dominant role they play in the literature. Interleukin and interferons are likewise separately and excellently chaptered—material which will be virgin to many practioners barely a few years out of their training.

Secondly the laboratory investigations are intimately discussed with both tables and diagrams to lead the way. Technology postdates most information on such testing in this field, but basically the studies are foundation for current developments. Peripheral medical centers—those away from a university or research facility—in fact have these tests available and by natural selection will get newer accepted investigation material.

Finally, a systematic clinical review is given, with each field by anatomic and physiologic order being discussed. Obviously some overlap is present, but not to a fault. Most readers will refer to these sections as pertinent to their interest rather than taking all the material in.

Each rereading of these revised editions is a mind expanding, if not overwhelming, experience. This particular Lange publication is not meant for the academically weak reader, and as such will be ideal for medical student, whether still in school or still trying to return to the vigor of school educating.

The Fragile X Syndrome

RJ Hagerman and PM McBogg, Editors

Spectra Publishing Co., Inc. 1983

This short (239 pp) paperback is an introduction to the Fragile X Syndrome, from the Child Development Unit at Children's Hospital in Denver. The expanding field of cytogenetics and perfection of technique that demonstrate chromosomal morphology gave birth to this discussion.

Mental retardation in some male and female patients is related to an abnormal X chromosome, particularly the peripheral (X)(q27 or 28) site. Males are more severely affected and females with milder dysfunction and dysmorphism are capable of reproduction and passage of the genetic villain.

Phenotype changes include macroorchidism, elongated ears, high arched palate, hyperextensible joints, pectus excavatum and mitral valve prolapse. Seizure disorder of varying types is encountered. Behavior disorders are often distressing with hyperactivity, autism and self mutilation (hand biting) the main though by no means only (some 30 problems are tabled) ones present.

Genetic turmoil seems to be the culprit with biochemical differences being demonstrable if not indictable. Transcription and/or condensation dysfunction ultimately destines these X-genes to look and act differently.

Excellent photography of metaphase plates show misshapen X-genes in males and their less atypical counterparts in females affected. Also the various phenotypic and behavior abnormalities are demonstrated in patient photographs—a great help.

Unfortunately several abstruse biochemical discussions and theoretical projections are included and pro-

posed for explaining this disorder. Documentation is given and current, but hard to validate by the casual reader.

This review is offered as an introduction to the book, not as a proponent. Nevertheless the reading was interesting and educational.

Current Pediatric Diagnosis and Treatment

CH Kempe, HK Silver, D O'Brien

Lange Medical Publication, 1984

This book corresponds to the pediatric alternative to the Current Medical Diagnosis and Treatment series, but its junior by many editions. As such it takes a broad swath at the pediatric field attempting to include medical, surgical, psychiatric and social aspects of practice. Many authors, mainly from the University of Colorado, take parts, including the senior editors, with the resulting choppy staccato style.

Revisions of chapters on adolescence, developmental disorders and emergencies and accidents are noticeably updated with review references and current practices.

An additional chapter on dysmorphology, the study of congenital abnormalities, has been inserted. In fact, this is really an overview with a discussion of embryogenesis and defects thereof, and with a method of newborn assessment for these alterations. Particular disorders are presented in the organ specific chapters, making this dysmorphology chapter seem appendageal rather than introductory since it is placed near the book's end.

The corpus of the book is divided into three parts. An introductory 250 pages includes chapters on history and physical examination, development, nutrition, immunizations, emergency care and so called "ambulatory" or bread and butter pediatrics. This material is the marrow for the practitioner, a grasp of which sets the possessor apart from adult medicine counterparts. Somehow this material is not readily recalled, the typical answers to the majority of parents questions by those not at the frontline seeing the young and very young.

Subsequently each organ system is reviewed, with anatomy and physiology first, then congenital abnormalities, diseases and surgeries germane, and finally a montage of treatment in varying detail. These chapters are usually authored by specialists in their respective fields, with concentrated interest in the pediatric disorders, rather than by generalists.

Later chapters cover fluid and electrolyte therapy, pharmacology, diagnostic and therapeutic procedures specific to pediatrics and finally tables of values.

I object to the use of the term "child health professionals," another neologism invented to be inoffensive when describing practitioners in the field. To a fault the authors expand their audience to all takers who would be involved in care of young people despite the fact that this book is really comfortably read only by those with significant medical sophistication.

Nevertheless regular reading of this paperback and its biennial revisions is an excellent refresher course and for the dilatante more than enough of an introduction.

The Greatest Good. A History of The John A. Hartford Foundation Jacobson JS

The John A Hartford Foundation, Inc. 1983.

Those of us schooled in the 60's and early 70's remember vividly the mushrooming research efforts, a wellspring from which flowed kidney dialysis, transplant and microsurgery and other technical developments. The Hartford Foundation nurtured a significant part of this research at a time when financial infusion was critical. This book is a tribute and an overview of the life and times at "The Hartford."

A & P stores, dotting the country literally from coast to coast contributed the fortune that was to become the corpus of the foundation. John A. Hartford, son of the A & P cofounder, was the initiator of this benefactoral foundation in 1929. Subsequently his brother George, also company president and chairman, significantly endowed the fund.

From its inception the Foundation was selective to medical needs, which were conceived to ultimately give the most benefit to mankind when met. Early on this took the form of construction contributions to major

hospitals and teaching centers including Columbia, Pennsylvania, Harvard, Chicago and Yale. Once the integrity of these institutions was shored, the scientists within beckoned for financial seeding of their work.

Subsequently the first dialysis program was sponsored and successfully operated. Through hundreds of grants transplant development and microsurgical techniques were engendered.

Declining A & P business and the dependence on stock dividends by the Foundation for funding ebbed the tide of granting.

Recent reorganization and restoration of financial integrity breathed new vigor into the Foundation. Likewise a new direction has been forged, problems in health care financing, energy conservation and most recently health problems of the aged.

Reading this brief but elegant history refreshed memories of various medical eras. The Foundation had its many successes and some failures, but with it all was and is a credit to its founders.

Stephen Z. Smith, M.D.
Assistant Scientific Editor

PRACTICE MADE PERFECT



The C/T/S Medical Management System is a proven, easy-to-use, fully-supported way to a healthier bottom line for you and your patients.

C/T/S is a company dedicated to improving the efficiency and profitability of medical practices through state-of-the-art computerization. Medical management systems are C/T/S's only business.

PROVEN PERFORMANCE.

The C/T/S Medical Management System was developed by a doctor...with an understanding of the unique problems of medical practice that only a doctor could have.

For over six years, C/T/S systems have been in use by practicing physicians, performing myriad tasks that have enabled them to reduce overtime and paperwork costs and increase productivity.

SPECIALIZED.

The C/T/S Medical Management System is configured individually for each practice, hospital department or HMO...and can accommodate single or multiple practices and/or multiple office networks. Systems are available to accommodate all sizes and specialties, with needs from one to 39 terminals, 42 printers, and 512 megabytes of disk storage.

Every capability is built right into the C/T/S system: insurance claims processing and monitoring (paperless claims), appointments, surgery schedules, medical records, data-base access, billing, receivables management, mailings/recalls, general ledger, payroll, front desk management and more.

C/T/S provides a complete, turn-key system...with expansion capability to handle all of your future growth.

EASY-TO-USE.

The C/T/S system is designed to go right to work as soon as it's installed. Our comprehensive on-site training program makes your staff feel right at home...and on-screen "Help" menus are always available.

FULLY-SUPPORTED.

The C/T/S system uses Wang hardware, with service provided by Wang's nationwide service network. All software is serviced directly by C/T/S.

WANG

The C/T/S staff of specialized program developers is always enhancing and refining our software product...annual updates are provided to our clients at no additional charge. C/T/S also provides custom programming for those few, one-of-a-kind requirements that are not already met by the system.

CALL 1-800-638-2667

for more information and to arrange a no-charge feasibility analysis. In Maryland call (301) 532-2870.

C/T/S Computer Terminal Services, Inc.

THE SYSTEM IS THE SOLUTION.

National Sales Office:

Village of Cross Keys • Suite 212
Baltimore, Maryland 21210

Regional Office:

10475 Montgomery Road
Cincinnati, Ohio 45242

The Ditch

The stack of Journals that I'm fixin' to begin to start to commence reading, the stack by the back door to the office, the one that keeps growing despite my best efforts, the stack which, if incorporated into me, will give me all power and wisdom, keeps growing. Alas.

Did any physician ever learn enough speed-reading or listening to keep up with the tidal wave of knowledge that towers over us? If so, was there still time to treat the sufferer toward whom it is presumably directed? That we add, with this Journal, another contribution to that torrent makes an editor pause to reflect on the deceitfulness of the creature urge. Maybe medical journals, insurance policies, hospital by-laws and new Medicare rules are written to be printed, not to be read - at least until it's too late.

This is preamble to saying that, despite all this, there are still great areas that should be addressed and are not. One such is the problem of too many people in the world. Now, I promise not to go over one page on this matter; it's easier to point with alarm than it is to solve with aplomb and a solution to this one would take many pages.

The writer recently stood on a small and rickety bridge over a wide ditch in a tragically overpopulated country half a world away. In the ditch was sluggish brown, tired water. On one side of the ditch was a thicket of tiny houses - built cheaply, urgently. On the other was a road teeming with people, animals, bicycles, motorcycles, ponderous buses and an occasional car. The ditch was a great advantage to this community because water, that absolute essential for our protoplasm, was close at hand and from the houses and from the road humans were drawn to it.

- A man raised his garment, squatted comfortably and defecated into the ditch.
- A woman emptied a bucket, then dipped it again and carried it brimming and dripping back inside.
- Another woman stood in the ditch thigh deep, soaplessly washing clothes by pounding them on the side.
- Children played in the ditch like seals, swimming, splashing, ducking.
- A man bathed and brushed his teeth.

Here are symbolized the afflictions of a world that doesn't really know what to do about all its people. That

small country, scarcely larger than Kentucky, has 100,000,000 living in it, and it's only one of many in a similar predicament. So the world gropes for answers and would like them to be easy, but the answers we have so far seem too pat.

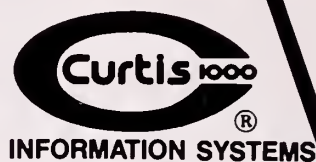
Economic improvement, ("so that a couple won't need so many children to secure their future") cannot come in time. Medical care ("so that a couple won't need to have 10 to be sure of raising two") will make the problem greater before it solves it. Education ("so that people understand contraception and the dangers of overpopulation") doesn't yet reach the ones who need it most. The Green Revolution ("because the Earth can produce still more food") is essential but it will also encourage fecundity. All of these approaches, and others, are worthy of our support but they are not enough. The urge to procreate combined with no-cost ecstasy and the convenient location of the genitalia is a formidable adversary. Ultimate answers elude the most authoritative.

Too, there are practical questions. Is it really possible that world population growth be limited? Governments have set up commissions, spent money, and proven ineffective. There are ethical and moral questions. Is coercive sterilization right? Is contraception sinful? These are things about which good people differ, sometimes bitterly. But moral or not it is probable that most of the world's great religions will not stem population growth; indeed, they will more likely work for the growth of their population.

There are numberless such ditches, often made putrid or poisonous by humans. Nuclear bombs are a horrifying risk - but they just might not go off. The Population Bomb will surely explode - a long, crushing, destroying explosion. Indeed, it has already begun. We're not just inhabiting the Earth; we're beginning to infest it.

So I share here my concerns, concerns not really dealt with by the world's wisdom, in my journals or yours. I turned and walked away from the bridge, now part of a throng - all of us intent on staying alive and being pleased about it. We've not yet heard the solution - in human terms. But if we wait for Nature, for God, to come up with the solution we may not like it at all - in human terms.

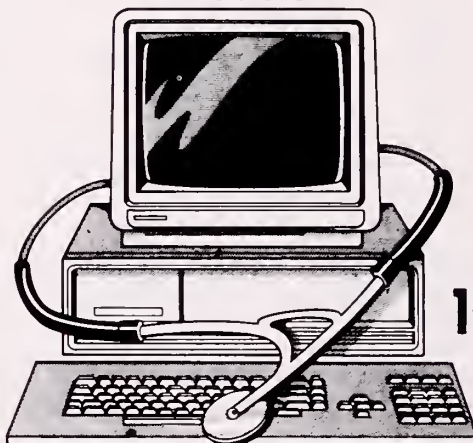
David L. Stewart, M.D.



FOR SMA MEMBERS

Present

MPM



1000

MEDICAL PRACTICE MANAGEMENT SYSTEMS
Available through SMA Physicians Purchasing Program

*Discounts on IBM and Texas Instruments Hardware *Discounts on Software *Now Available on New IBM PC/AT

MPM 1000 the complete system includes:

- *Hardware (IBM or Texas Instruments)
- *Software
- *Training
- *After Sale Support
- *Solo, Group Practice or Clinic Systems

Designed to work in all aspects of practice management

Standard Programs include:

- *Patient Profiles
- *Accounts Receivable/Billing
- *Insurance Processing/Tracking
- *Collection System
- *Recall Notices
- *Full line of Management Reports
- *And much more . . .

Optional Programs include:

- *Word Processing
- *General Ledger
- *Accounts Payable
- *Payroll
- *Inventory Control
- *Appointment Scheduling

Want more information? Call or write for detailed brochure Call Southern Medical at 205-945-1840

or

Curtis 1000 Information Systems at
800-241-4780 in Ga 404-491-1000

YES!

I would like to know more about the MPM 1000.

- ☐ SMA Member
- ☐ I am not an SMA Member

Name _____

Address _____

City _____

State _____

Zip _____

Office Phone _____

Mail to: CURTIS 1000 INFORMATION SYSTEMS
2296 Henderson Mill Road
Suite 402
Atlanta, Georgia 30345

Report of the Committee to Investigate Changing Trends in Medicine

The following article is the report of the Committee to Investigate Changing Trends in Medicine which was presented to the House of Delegates at their meeting in September. The KMA Board of Trustees and the House of Delegates considered the report of such importance in providing pertinent information that it was decided to highlight it in this issue. All reports and proceedings of the September House of Delegates meeting will be published in the December Journal of KMA.

Your Committee held three meetings this year: November 16, 1983, March 21, 1984 and May 23, 1984.

The charge to the Committee is to study and report on evolving delivery and payment mechanisms; to study and report on demographic trends affecting medical practice; to study and report on ethical questions regarding financial considerations vs. quality of life; to investigate trends in cost containment activities; and to determine, to the extent feasible, the role of organized medicine in this changing environment.

Last year we reported to you on competition in medicine, the emergence of the free-standing clinic, the preferred provider concept and the practice plans of residents and third and fourth year students. Our observations from those studies were:

1. Cost is the single biggest challenge confronting physicians today and is the single most important reason for the rapid movement toward non-physician involvement in medical payment issues.
2. The profession has lost much of its ability to discipline its own peers and unless some measure of authority is restored, professional organizations, and therefore the profession itself, will become increasingly fragmented and weak.

3. The corporate practice of medicine is here and will probably get stronger as larger numbers of physicians come into practice only to find very limited opportunities.

4. Patients and employers are cost conscious today and there is a growing trend to make individuals even more aware of the costs of medical services.

Our conclusion was that the profession needs to stand together today more than ever. County medical societies, KMA and the AMA will remain effective as long as we have a unity of purpose and represent a significant percentage of physicians in Kentucky. That collective influence is our only hope of maintaining the privilege of independence we've enjoyed as a profession.

We present these thoughts to you again because we felt they are as true today as they were last year.

This year, the Committee researched the following areas:

- Medicare prospective payment system based on diagnosis related groups.
- The challenges and opportunities of the young physician entering practice today.
- The image of the physician/profession.
- The AMA/GTE Network.
- Women in medicine.
- Hospital-owned free-standing clinics.

Last year, the House of Delegates asked the Board to appoint an Ad Hoc Committee on Hospital Medical Staff Sections to determine the feasibility of developing such a section within KMA. Because the impact of the prospective payment system as currently being implemented is upon hospitals, the Trends Committee met in joint session with the Ad Hoc Committee on the Hospital Medical Staff Section.

We were pleased to have Harry R. Hinton, Director of the Division of Professional Relations of the American Medical Association, meet with us to discuss the DRG program.

Evolution of the Medicare Prospective Payment System Based on DRGs

Medicare and Medicaid were enacted at the beginning of a period marked by expansion of federal government involvement in social programs. The "Great Society" programs of the mid-60's embraced new segments of the population and provided a wide array of social services including a variety of health programs. During those years, almost unlimited funds were being poured into varying aspects of the health system.

It is within the context of expanded federal assistance for facility development, for manpower expansion, for health research and dissemination of medical knowledge, and expansion of alternative delivery systems that the federal medical programs providing payment for medical services completed a circle of large-scale encouragement and direct financial support for the health care system.

In following years, the Medicare program and its coverages were expanded to the disabled and those with end-stage renal disease.

Because of program expansion, cost-based reimbursement under Part A, an increase in the number of program beneficiaries and per capita use of services, the expanding availability of providers and an increasing rate of inflation in the economy as a whole, the costs of Medicare began to increase sharply.

Cost-related amendments to Medicare began in 1972 when Congress imposed new controls on hospital reimbursement, capital expenditures, and new controls over physicians' fee increases. Later modifications affecting hospitals in particular were adopted, resulting in a major restructuring of hospital reimbursement in 1983 through the Prospective Payment System, based on DRGs.

The Prospective Payment System transfers control over the price of health services from the provider to the payor and it informs the provider of revenue limits imposed by the control. Thus, prospective pricing is, in theory, a means of reducing the growth rate in health care costs. Prospective Payment Systems place price control in the payor's hands and increase the provider's risk by giving him an incentive to minimize costs. Advance knowledge of the unit price and the amount of service provided and paid for within that unit, in effect, places a revenue cap on the provider's operation.

The payment unit under the DRG system is the case or discharged patient. Payment is made, not for the actual costs of care given to the individual patient, but

for the average cost of care for patients with similar diagnoses. Payment itself is made after the patient is discharged.

The commercial health industry has launched a major campaign nationally to encourage all payor prospective payment systems at the state level. These systems will not only protect commercial carriers from providers shifting costs they cannot recoup under a PPS, but also, by presenting a unified front, the payors would force providers to reduce costs to all payors in the aggregate. The federal government has facilitated this effort by establishing criteria for state prospective payment systems, which, if met, would obligate Medicare and Medicaid to participate. It seems likely that the Prospective Payment System would be a model for any payor systems that develop and for any expansion into payment for outpatient and physician services.

One of the longest active experiments in prospective pricing is the New Jersey program. This system is administered by the state and involves private sector payors as well. However, Medicare was the prime mover in initiating and developing the New Jersey DRG-based system, which in part provides the model for the national Prospective Payment System which went into effect last October. Recent evidence suggests that the New Jersey system has not reduced costs significantly. The Health Care Financing Administration, as a result, has notified the New Jersey program that HCFA has withdrawn the state's Medicare Waiver which allows its exclusion from the Medicare PPS. The reason given by HCFA was that "expenditures from the Medicare Trust Fund may be significantly higher than would be the case if the . . . national prospective payment system were applicable."

The development of DRGs was done in two stages. First, a panel of practitioners sorted the diagnostic and procedural codes from the International Classification of Diseases into major diagnostic categories (MDCs). A total of over 10,000 codes were clustered into 83 MDCs. The criteria included consistency of anatomic classification or the manner in which patients were clinically managed, a sufficient number of patients within each MDC for statistical analysis, and coverage over the complete range of codes without overlap. Following this, characteristics in a medical record were found which accounted for the variation of the length of stay among the records included in each MDC. These variables included patient age, sex, manner of treatment (medical or surgical) and the presence or absence of complica-

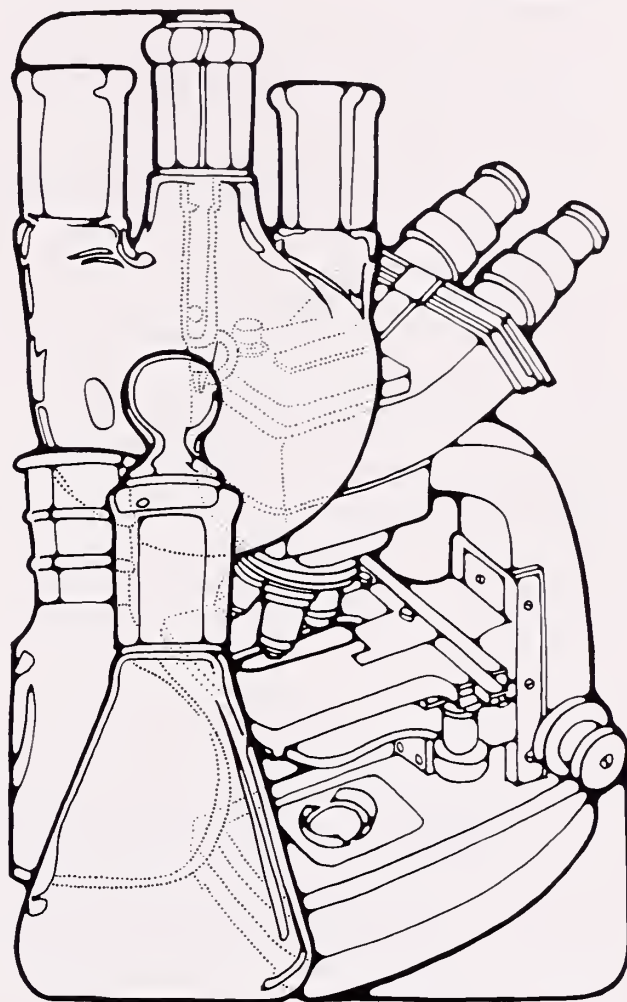
Association

tions (conditions appearing during hospitalization) or conditions present at the time of admission. This resulted in an indication of the importance of a particular variable in explaining why a variance in length of stay was different from one MDC to another. In some MDCs, age was the most important variable, while in others it was significant only for certain age groups, while some MDCs showed that age was not a significant variable.

These results were used to generate a set of subgroups within each MDC. These subcategories became Diagnosis Related Groups. The subgroups were assigned relative mathematical values based on the importance of each variable in explaining the variance in length of stay. This classification allowed assignment of any individual case, based on its medical record, to one and only one DRG. The first stage of DRG development was intended to ensure that the final groups were "clinically coherent" in that they represented similarities among bodily systems treated or in case management, while the second stage, the subcategorization of MDCs into DRGs, was intended to insure that the groups were similar in terms of resource consumption. This initial effort resulted in the division of 83 Major Diagnostic Categories being subdivided into 383 Diagnosis Related Groups.

Some problems associated with this early effort were that the DRGs were developed with regional data (that from New Jersey only), and therefore reflected local practice patterns. Different data bases and different development teams might produce different patient classifications. The system was not clinically coherent and difficult to use by doctors and hospital administrators. DRGs were based on length of stay rather than on direct measures of cost. The presence of a secondary diagnosis could place the patient in a higher-cost DRG and as a result, patient assignments to the DRGs could be easily manipulated. There was also no provision made for a difference in level of severity of illness within a DRG.

Because of these criticisms and because the ICDA-8 had been superseded by ICDA-9CM, Yale University was awarded a grant to develop a new set of DRGs specifically geared to the requirements of the New Jersey Prospective Payment System. These new DRGs were intended to be medically interpreted, based on information available in existing medical record abstracts, limited in number, compatible with Medicare data for eventual Health Care Financing Administration use, limited in variation of length of stay within a DRG and



based on explicit rules on how to subdivide a Major Diagnostic Category. The 23 new MDCs were based primarily on organ systems because this structure parallels that of the medical specialties, which in turn influence practice patterns. Where body systems were not the identifying characteristics of an MDC, the MDC still differentiated from others along specialty lines. The other major difference within the new DRG system is that the primary factor assigning a case to a particular DRG is the question of whether a surgical procedure was performed, reflecting the relatively high cost of surgical vs. non-surgical treatment.

A national data base of approximately 250,000 cases was used in development of the new DRGs and an additional 1.15 million records were used to test them. In addition, three different teams developed DRG definitions which turned out to be substantially similar.

No specific effort was made to allow for variations in severity of illness because research had indicated that

variation in cost tended to be affected more by difference in practice patterns than by difference in levels of severity. Under the new Medicare system, the DRG is the payment unit and unit price is based on a nationwide measure of hospital cost. Each DRG is assigned a weight to the unit values and that weight multiplied by the unit value determines the payment for the individual case.

The DRG Relative Price Index, the weights attached to individual DRGs, are based on the Medicare Provider and Analysis Review Data file which consists of information regarding billed charges and clinical characteristics, such as principal diagnosis and principal procedure, for a 20% sample of all Medicare short-stay hospital bills submitted in a one-year period. The charge data are used to determine the relative cost of each DRG compared with the average DRG. The hypothetical average DRG is assigned an index value of 1.0 and the 467 DRGs range above and below that value.

The unit price or National Representative Cost per Discharge is found by combining Medicare cost reports and hospital discharge files for the same year that the MEDPAR file employed in determining the relative DRG price index. The most recent year for which complete data is available is 1981, so those figures are adjusted for inflation and regional cost differences. The hospitals' Medicare cost report provides detailed audit information about allowable costs incurred by institutions, while discharge files provide accurate counts of the number of discharges. The cost data divided by the number of discharges provides a flat charge per discharge which, combined with the Relative DRG Price Index of Weights, provides a national standard price for each DRG.

Payments based on DRGs will be phased in gradually and began October 1, 1983, with each hospital beginning implementation at the start of a new Medicare reporting period. The basis of payment will shift over the next three years from a 75% hospital-specific, 25% DRG, to 25% hospital-specific, 75% DRG. After that time, payment will be based on 100% DRG.

Service exceptions refer to those services covered by Medicare which will continue to be reimbursed under the retrospective system. This includes physician services billable under Part B and ambulatory hospital services. Initially at least, PPS will be restricted to inpatient services defined in TEFRA as being included under Medicare Part A.

Hospitals which are exempted include long-term, pediatric, rehabilitation and psychiatric hospitals which will continue to be reimbursed under the retrospective cost-based system. Veterans hospitals and those under demonstration or state all-payor programs are also included. Those states which are waived from the program include New Jersey, New York, Massachusetts and Maryland, but as mentioned, New Jersey may lose its waiver.

These exemptions will be in effect during the three-year phase-in period, but the enabling legislation mandated that the Department of Health and Human Services study the feasibility of including physicians' services billable under Part B, but rendered to hospital inpatients in institutions covered by the DRG system. It was noted that there is some congressional support for legislation to include physicians' services even before the study has begun.

Another exemption is the outlier, which is a special supplemental allowance for cases which have unusually long lengths of stay or high costs. Under Medicare, if a case exceeds a set cut-off point or threshold for its DRG in terms of cost or length of stay, it receives a supplementary payment DRG rate divided by the mean LOS for that DRG, multiplied by the number of days beyond the cut-off point. Costs outliers are cases which do not exceed the length of stay cut-off, but do go beyond a cost threshold. While length of stay outliers are automatically identified, a cost outlier must be requested by the hospital and is subject to medical review. In an effort to minimize the hospital's incentive to generate outliers, payment will be made only at 60% of the prorated DRG amount.

It has been suggested that DRGs will force a closer relationship between hospitals and the medical staffs. However, DRGs may also raise pressure to change practice patterns such as emphasizing earlier discharges and performing fewer tests. Hospitals are faced with basically two choices, to either increase revenues or to decrease expenses. There are computer systems now available which are programmed to enhance diagnosis and to select only the low cost, high reimbursement cases.

Another possibility which may affect staff and hospital relations is an effort on the part of the hospital to modify physician practice behavior. Hospitals have some leverage in determining who may be granted clinical privileges or whose clinical privileges may be withdrawn. Both are legally and actually within the hospi-

Association

tal's authority and responsibility. Historically, hospitals have made such decisions in response to physicians' needs. However, more recently these decisions have been reached on the basis of the added dimension of the hospital's responsibility for the quality of medical care provided by the staff. In the future, these decisions may be based on economic considerations, thus granting privileges to physicians and nonphysicians who are likely to practice more economically. It is felt by some that the balance of power between the hospital and the physician is shifting toward the hospital, enhanced by the increasing supply of physicians, which in effect makes the hospital the buyer in a buyer's market.

Technology use may change as a result of DRGs. Hospitals will want to maximize reimbursement. It will quickly become apparent which technologies produce profitable results and which do not. One way to reduce losses may be to close down certain departments, thus eliminating specific technologies. Another may be a more selective approach to purchasing equipment and

may use their leverage on appointments, reappointments and admitting privileges to keep the staffs open, thereby increasing their power base as more physicians and other providers seek to use the diminishing supply of facilities. Some have estimated a reduction of 800-900 hospitals over the next 10 years.

Because of the potential for physician reimbursement to be based on DRGs, and due to the potential for a minimal amount of care being given in order to enhance reimbursement, the Committee felt KMA should serve as a central source where problems relating to DRGs could be reported. The Board of Trustees agreed with this concept and physicians were invited, through the *KMA Journal* and "Communicator," to alert KMA of any problems with the DRG system. Shortly after our recommendations were implemented, the AMA established a similar program. To date, no problems have been reported in Kentucky to KMA.

“Hospitals are faced with basically two choices, to either increase revenues or to decrease expenses. There are computer systems available which are programmed to enhance diagnosis and to select only the low cost, high reimbursement cases.”

not purchasing equipment of marginal value. This may lead to the growth of specialty hospitals, generate greater product standardization and increase the tendency for manufacturers to produce technological products of significant rather than marginal benefit.

An announced goal of HCFA is to include physicians under DRG payments in the future. However, it faces a lack of data on which to develop such a system. Some bills to Medicare come from physicians and some from patients. Information on billing sent to Medicare by the carrier contains no clinical data. There is no uniform procedure or diagnosis code. Other financial problems include chronic conditions not requiring admission and multiple admissions.

Increasing numbers of physicians and decreasing numbers of hospitals will create more pressure for exclusive contracts and closed medical staffs. Hospitals

Challenges and Opportunities of the Young Physician Entering Practice Today

At the present time in Kentucky, there are 2,391 physicians under 40 years of age. Of those, 1,081 are not members of the Association.

Nationally, the under-40 age group represents 41.8% of all physicians (1981 figures). 17% are female. Clearly, this age group will have a significant impact on the direction that medicine will take over the next few years.

The Committee is pleased to have had two resident members who have been extremely active within the Committee. One resident member reported on the challenges the young physician faces today upon entering practice. The report was gathered from various resources including a number of journals, discussion with other residents and from personal experience.

One of the biggest problems facing the new medical professional today is the tremendous increase in the

number of physicians entering practice. One study predicts that there will be an increase of 43% in physicians in practice between 1978 and 1990. Of course, this will result in increased competition among physicians for practice opportunities, locations and patients.

Young physicians today have difficult choices to face. More physicians mean limited practice opportunities in the traditional private sector. As competition for staff privileges grow, there is a greater emphasis on competence as the criteria for being accepted to the staff when new physicians have had no opportunity to prove they have the degree of clinical competency demanded.

The start up costs of practice are high. Professional liability insurance costs and capital needed to acquire and equip an office make it difficult to establish a solo practice and other practitioners in a community may not welcome more competition from a newly trained physician. Increased governmental requirements and the frustration of dealing with third parties combine to make it difficult to start a practice. These difficulties have faced many physicians over the years, but the new physician today has other options.

Corporate-sponsored organizations can be very attractive to the new physician confronted with the challenge of establishing a new practice. Corporate-sponsored practice often offers a good starting salary, limited hours, little practice overhead, guaranteed vacation and time for professional growth with no financial commitment from the physician. This type of practice may be appealing to female practitioners (whose numbers are now 30% of medical students nationally) who tend to enter primary care, want to work fewer hours and tend to be less entrepreneurial than their male colleagues.

Young physicians feel both threatened and pressured by the establishment of PPOs, IPAs and free-standing clinics and the growing influence of investor-owned corporations in the delivery of care.

An increasing number of hospitals, both investor-owned and noninvestor-owned, are offering practice arrangements to physicians. These range from fully salaried employment to an unwritten agreement to send all the physician's patients to a specific hospital in return for a guaranteed patient base and complimentary office space and equipment. The obvious problem is the potential for medical decisions to be influenced by business managers.

Organized medicine is often seen as a group of established practitioners with little interest in the problems of the young physician. Many physicians in their

residencies are apathetic and are concerned with finishing residency without giving much thought, at least in the early stages, to the competition they will face upon entering practice. At the same time, corporate entities are extolling the virtues of corporate practice. Organized medicine has done little to make the young physician aware of the options, opportunities and benefits of a noncorporate-sponsored practice.

Many younger physicians in training don't realize what KMA can do for them. There are few perceived incentives to join. Various studies show that by 1990, a majority of practicing physicians will be under 40-years-old.

In an effort to enhance dialogue with the resident population, President Holloway appeared on the Resident Orientation Program at the University of Kentucky on June 28, and Membership Committee Chairman Haller addressed residents at the University of Louisville Orientation Program on June 30. In addition, we have met with the House Staff leaders at both universities in an effort to determine their interest in establishing a Resident Business Section within KMA.

A full-time Membership Coordinator has been added to KMA's staff and a comprehensive recruitment effort is being undertaken to bring physicians under 40-years-old into the membership. In addition, other incentive programs are being investigated, all with the idea of increasing the role and representation of the young physician within the Association.

The Image of the Physician Profession

The Kentucky General Assembly met this year and, based on the number of legislative issues in which KMA was interested, the Session could be considered to be a reasonably positive one, mainly through the efforts of the Legislative Committee, the Key Men and the intensive lobbying activities of KMA Staff. However, it is important to point out that the Legislature has developed an almost hostile attitude toward health providers. Health care costs have now joined the issues of taxes and utility costs as the three most negative issues with which the legislators now deal. A number of influential legislators have stated that much of the negative legislation introduced this year was an effort to try to make the health care delivery system realize the concern of the Legislature over health-related costs. If major changes are not undertaken voluntarily, providers can expect significant legislation and regulatory measures to be adopted in the 1986 Session to deal with the cost issue.

Association

At the 1984 AMA Annual Meeting, the AMA Council on Long Range Planning and Development issued a Report on the Implication of Trends in Physician and Public Attitudes. The Report analyzes the results of a survey consisting of telephone interviews with 1,000 physicians and 1,500 U.S. adults performed for the AMA by an independent research organization.

The number one problem facing health care in both the physician's opinion and the public's opinion is that of cost. Sixty-five percent of those polled from the public sector indicated that cost was the major problem, while 52% of the physicians polled felt that cost-related issues were the major problem. The second highest problem cited by physicians was government regulation. This would indicate that while public concern over medical cost continues to rise, physicians' concern over cost per se dropped somewhat while their concern over government efforts to regulate costs increased. The results of the physician poll do not imply that physicians are becoming less concerned about costs. The issues of health care costs and governmental regulations are highly interrelated. Thus, the survey results represent a subtle change in the way physicians view a complex set of interconnected issues.

The survey indicated that there continues to be strong public resistance to changes in the health care system designed solely to help control costs. The public appears to support restructuring the system to control rising costs as long as changes do not affect the way in which each individual receives medical care. Additionally, there are signs of possible consumer backlash against proposals which would increase out-of-pocket costs or create incentives for consumers to choose low coverage insurance packages. These opinions imply increased public support for regulatory solutions that would place the burden of cost constraints on providers. Thus, from the public side, it would appear that physicians' concerns about federal intervention are well founded. Based on the attitude of the Kentucky General Assembly this past Session, it is clear that the attitudes expressed in the national survey are applicable to Kentucky.

The survey also sought to track trends and general perceptions of physicians. The public opinion of physicians in general varied substantially by scientific vs. economic emphasis. Physicians continue to be highly regarded in terms of their scientific knowledge. However, image deterioration in the area of fees and incomes is particularly evident in the survey results. However, the image of the personal physician is sharply

better than the image of the general physician population. Similarly, within the Trends Committee there is a general agreement that the public's perception of the profession has greatly changed in the last few years, basically over a concern with costs. It was felt that KMA must establish the renovation of that image as a priority item in the coming year and activities should be undertaken by the Association to enhance the public's perception of the profession. The Committee felt that the most effective image enhancement program could be developed for use by the practitioner in his office rather than through an advertising campaign done primarily through the media.

An area which has significant potential for enhancing the image of the profession through individual activities is to make the membership more "customer" conscious. While most physicians are extremely attentive to their patient's medical needs, one might question the degree of emphasis put on the patient's "customer needs." How long does it take for a patient to get through to your office on the telephone? Are patients put on hold for long periods of time? What is the attitude of your staff on the telephone and when they receive patients in your office? Plans are being made to provide information to the membership on various marketing techniques which might serve not only to enhance the image, but also to help them to be more competitive with investor-owned entities as well.

The Committee also reviewed and was very supportive of a slide presentation developed by KMA which discusses the health cost issue and tells "medicine's side of the story." The professionally done program is available on loan from the Headquarters Office and is designed for presentation before lay audiences. The Committee encourages members of the House to avail themselves of this program. Physicians must take the lead in setting forth our story. Certainly, we cannot rely on other entities to do it for us.

Women In Medicine

The Committee met with Leah J. Dickstein, M.D., Associate Dean for Student Affairs at the University of Louisville, and a founding member of the Kentucky Chapter, American Medical Women's Association. The AMWA was organized in 1915 because women, at that time, were not allowed to join organized medicine. There are about 65,000 women physicians in the United States today, with approximately 1,000 in the state of Ken-

Association

tucky. Nationally, about one-third of the current medical school class is female.

According to Doctor Dickstein, women physicians are very concerned with women's health issues, such as unnecessary hysterectomies, mental health problems and the use of medications for women patients. Studies have shown that women receive more psychotropic medications than men, which are mostly prescribed by nonpsychiatrists. The pharmacology of medicine is a major issue with female physicians today.

Most female physicians today practice full time; however, a significant percentage are not members of KMA. Many female physicians find little time for organized medicine because they are busy practicing medicine while, in many instances, they are raising a family. In addition, many may not be aware of the services offered by KMA. Some simply choose not to get involved in organized medicine, but Doctor Dickstein felt there are a number of female physicians who might get involved if they were encouraged and invited to do so. Doctor Dickstein said she felt female physicians could be very helpful in sharing opinions and ideas of general medical care of women patients and could bring unique perspectives to organized medicine. It would be helpful for everyone to be made more aware of the attitudes of women, both as patients and physicians.

The Committee felt that a vehicle is needed to enhance female participation in KMA. The establishment of a Medical Women's Section, similar to the Student Business Section, was discussed as one way that female physicians could participate in KMA and at the same time provide a mechanism to bring issues affecting women before the House of Delegates.

A meeting was held with representatives of the American Medical Women's Association in late June to discuss the various benefits of KMA membership and the feasibility of a Women's Medical Section. The Committee plans to continue its efforts to enhance the participation and membership of female physicians in the activities of KMA.

Hospital-Owned Free-Standing Clinics

In Louisville, Norton's Hospital has purchased three so-called "free-standing emergency clinics" and is scheduled to construct four more. It is our understanding that Norton's will rent space to physicians, furnish certain services and equipment, but will require that they stay open a certain number of hours and "urge"

the physicians operating the clinics to send patients to that hospital. As a result, the Jefferson County and Kentucky Academy of Family Physicians requested the Determinations Subcommittee of the Certificate of Need Board to determine if a Certificate of Need was necessary for free-standing clinics. The Certificate of Need Board decided a Certificate was not necessary in that the FECs were no different from a physician's office and did not make a facility charge to third parties or patients. There is an exclusion in the current State law that exempts physicians' offices from Certificate of Need. A major concern is that if Certificate of Need statutes are changed in such a way as to require a Certificate of Need for free-standing clinics individual physician's offices may also be forced to undergo the same application and hearing process for their individual offices.

This issue had been brought to the Committee because it is the type of problem the Board had originally wanted the Committee to discuss. That is, if two groups of physicians, both licensed to practice medicine and both practicing appropriately, with both groups having membership within KMA, what position should the Association take in trying to work out a conflict between the two? The members of the Committee felt that the key to solving the problem is for traditionally practicing physicians to become competitive with these entities. Physicians will have to meet competition, not try to legislate it out of existence, by providing a better service at a better price.

Hospitals are now getting into the delivery of care rather than furnishing a facility at which care is delivered. DRGs, Preferred Provider arrangements, and the shift from institutional to outpatient procedures are all creating pressure to keep patients out of hospitals, and hospitals in turn are looking for ways to bring people back into them.

It was felt that the time had come for organized medicine to take a stand with regard to the movement of hospitals toward the practice of medicine. If this growth and movement continues unchallenged, it will only serve as an incentive for more institutions to develop and implement similar programs. The Committee felt it was time for the profession to take the offensive by becoming more available to their patients, by being more sensitive to their needs and by the physician becoming more aware of an individual's financial circumstance.

There was agreement that the Committee should look into activities which would educate the membership about the myriad of alternate plans now being devised

Association

and implemented in an effort to make them both aware of the challenges they will be facing in the next few years and to help provide opportunities for them to develop techniques to address those challenges.

We are investigating the development of a program on the many socioeconomic issues now facing medicine. Although it was felt that it might be difficult to produce such a program in September of '84, the option was left open for the Committee to produce such a program at another time during the upcoming year, and we are hopeful such a presentation can be developed by late winter or early spring of 1985.

Competition

One of the Committee's members is a principal in a private commercial laboratory. Because competition among private laboratories is so intense and because it has a number of parallels with the changes medicine is now undergoing, the Committee asked Doctor Clanton to report on the evolution of competition within the commercial laboratory field.

The commercial laboratory business has become very competitive over the years. Companies now have marketing representatives and customer representatives and tend to be somewhat aggressive in their marketing. Most commercial lab negotiations are done through a bidding process with a narrow profit margin making the better financed and managed operations more competitive, many of which are growing and becoming more powerful.

The key to commercialization of the laboratory business was automation and technology.

Advances in automation made it possible to increase volume while reducing the unit cost of service which created competition. Lower prices resulted in higher volume. At the same time, there were increases both in the number of third parties and in the services covered by them.

Now, government regulations are making it possible to use more non-MDs in providing lab services, which has led to more price-based competition.

The mail order lab business was able to offer a package of low costs and needed services to remote areas. That put a great deal of pressure on the smaller local individually-owned pathology laboratories.

Today's commercial lab business requires significant capital to compete in the marketplace. Some sophisticated tests require the availability of well trained specialists. Marketing and management skills are required to compete. The trend is toward a predominance of

large laboratories with highly automated equipment, which are well capitalized and managed. This may preclude the physician from being a major decision maker in the management of the business. The physician will be an important employee selling his technical and professional skills. The use of non-MD's has greatly increased in this area, with PHD's and other technicians being used primarily.

Doctor Clanton reported that, in the commercial lab business, the physician has lost a great deal of independence. He noted the parallels of the commercialization of the laboratory business with the movement of hospitals into the practice of medicine and the explosive growth of the investor-owned HMOs whose enrollments are growing about 20% per year.

In continuing its study of the changing trends in medicine, the Committee has established the objective of developing information which will help both individual physicians and organized medicine plan for the future. It is increasingly apparent that the future of the profession, of organized medicine and of medical care in this nation depends on our ability to anticipate and plan for changes in the environment of medicine.

If there is one unchangeable law, it is that no individual or organization can be protected from change. This concept is not news to a profession whose membership includes individuals who began practicing before antibiotics, health insurance, polio vaccine and Medicare and Medicaid. Still, change in the past is most often equated with progress because virtually every change seemed to expand the physician's ability to provide effective care and created new demands for medical services. However, some current developments may not be beneficial to all patients and physicians. Unless the profession is successful in planning for and shaping the environment of medicine, the future could be less encouraging.

As physicians we cannot forget the most important scientific challenges of medicine remain impairment and disease. Please keep in mind that success in responding to the environment within which the profession must provide its service may be as important to health in America as any challenge we as a profession have ever faced.

Charles C. Smith, Jr., M.D.
Chairman

WHY NOT THE BEST?

With so many life insurance companies in the marketplace today, sometimes it's difficult to choose the one that is best for you.

At American Physicians Life, we offer a comprehensive range of competitively priced insurance products designed with the successful professional in mind including an innovative universal

life plan, individual and group term life coverages, qualified pension programs, high-yielding annuity plans, and attractive disability income programs.

APL is represented by the most knowledgeable and professional insurance agents in the industry in addition to being staffed by home office personnel who are dedicated to providing

the quality of service a successful professional expects and deserves.

When you are thinking about life insurance protection or planning for a secure future, why not choose a company who understands your particular protection needs—why not choose the best?



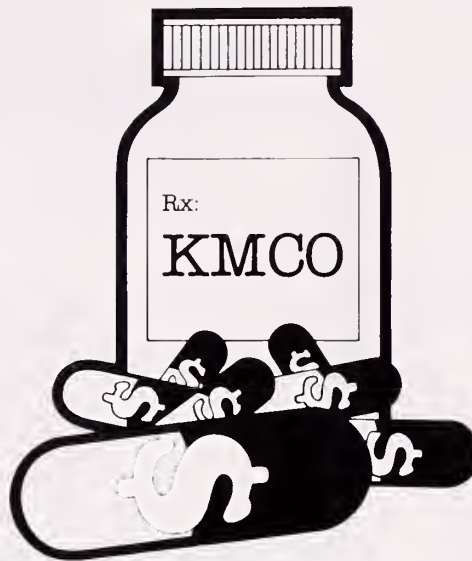
AMERICAN PHYSICIANS LIFE

For all your life insurance needs.

A SUBSIDIARY OF PHYSICIANS INSURANCE COMPANY OF OHIO

*Does your office
need a "physical"?*

KMCO can diagnose
your office needs
and prescribe the
proper remedy.



A subsidiary of KMA Physicians Services, Inc.

**KENTUCKY MEDICAL MANAGEMENT &
COMPUTER OPERATIONS**

recommended by Kentucky physicians as the
treatment of choice for reliable and economical
advice and support in all phases of office
management.

Our package of services includes consultation and
evaluation of office automation needs, and if a com-
puter is recommended, we have the staff expertise to
not only make sure the right computer is installed,
but will be there to insure its efficient operation. Your
computer package will be specially designed to
accomplish what you need—now, next month and
next year.



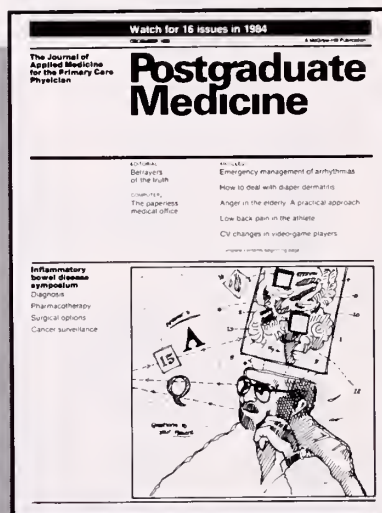
Contact:

Marty Paslick or Joe Witherington
3532 Ephraim McDowell Drive, Louisville, KY 40205
Toll Free 1-800-292-1675 or in Louisville 451-2095

T U R N

TO POSTGRADUATE MEDICINE

*Your single,
most important
source of information
on General and
Internal Medicine!*



Each issue filled with diverse practical information in all areas of medical practice including:

- IM Subspecialties
- Pediatrics
- Obstetrics/Gynecology
- Emergency Medicine
- Other Key Clinical Areas

Read every issue
**Postgraduate
Medicine**

Where Clinical Diversity is an Art.

HIGHLIGHTS OF YOUR SPONSORED GROUP FRANCHISE DISABILITY PLAN

All coverages have been upgraded at a true step rate. Now up to \$6,000 A MONTH — tax free when you pay your premium personally; **SINCE 1939** when the first contracts were written we have had **UNISEX RATES**; **PREGNANCY** paid for one month of disability — if there are complications the benefits are paid the same as any other sickness; **PRIVATE FLYING COVERED** even for the optional accidental death benefit up to \$100,000 at 70¢ a year per thousand; **FIRST DAY COVERAGE** offered and strongly advised for new professionals; pays you for being unable to practice **YOUR SPECIALTY** to age 65; **REHABILITATION** programs; cost of living adjustments; **RENEWAL GUARANTEE**; optional residual disability, hospital benefits and waiting periods.

We feel the new contract merits your consideration!



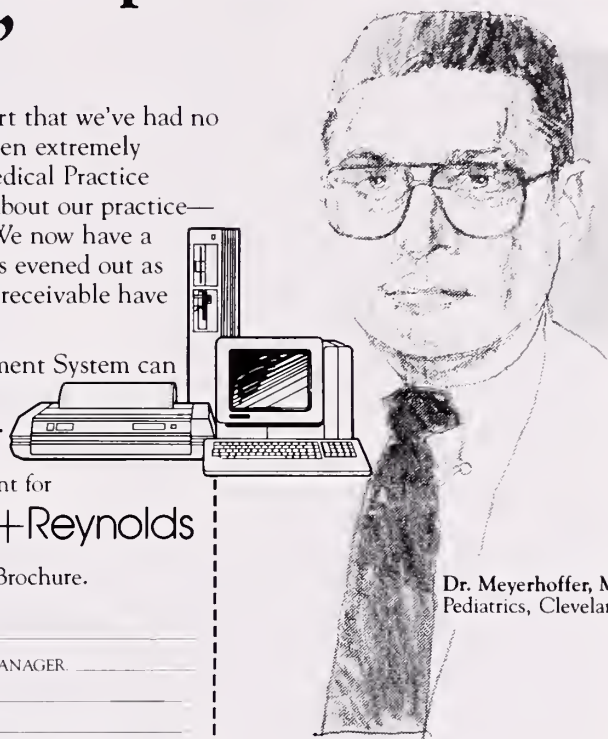
631 Lincoln Federal Bldg.
Fourth Avenue
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.

"We now have a concise profile of practice productivity."

"We have eight terminals in constant use. I'm happy to report that we've had no downtime problems and Reynolds + Reynolds has always been extremely responsive to our needs. Since our Reynolds + Reynolds Medical Practice Management System was installed we've learned vital facts about our practice—number of visits, procedures performed, physician activity. We now have a concise profile of our practice productivity, and cash flow has evened out as a result of the new billing system. I'd estimate that accounts receivable have decreased by 15% or more."

For more information on how the Medical Practice Management System can improve your practice too, complete the coupon below.



Imprint Area

an authorized agent for
Reynolds+Reynolds

____ Please send your Medical Practice Management System Brochure.

____ Please have an authorized agent contact me.

PHYSICIAN: _____ PRACTICE NAME: _____

NO. OF PHYSICIANS: _____ SPECIALTY: _____ OFFICE MANAGER: _____

ADDRESS: _____ CITY: _____

STATE: _____ ZIP: _____ TELEPHONE: _____

© 1984 The Reynolds and Reynolds Company. All rights reserved.

Dr. Meyerhoffer, M.D.
Pediatrics, Cleveland, OH.

We're Hardware. We're Software. We're Everywhere.

Postgraduate Page

NOVEMBER

- 1-2 Eighteenth Annual Newborn Symposium, University of Louisville School of Medicine, HSC, Louisville, Kentucky. Contact: Betty Matthews (502) 588-5329
- 9-10 Practical Hoffmann Fixation, Marriott Inn, Clarksville, Indiana, University of Louisville School of Medicine. Contact: Betty Matthews (502) 588-5329
- 14-17 Rhinoplasty - A State of the Art Symposium, The Waldorf Astoria, New York, NY. Contact: Francine Leinhardt, Plastic Surgery Clinic, Manhattan Eye, Ear and Throat Hospital, 210 East 64th Street, New York, NY 10021
- 16 Diagnostic Ultrasound Update '84, (West Virginia University School of Medicine) Sheraton Lakeview, Morgantown, West Virginia. Contact: Robert Kristofco, Office of CME, WVU School of Medicine, P. O. Box 6302, Morgantown, WV 26506-6302
- 16 The Care and Preservation of the Diabetic Foot (West Virginia University School of Medicine) WVU Medical Center, Morgantown, West Virginia. Contact: Robert Kristofco, Office of CME, WVU School of Medicine, P. O. Box 6302, Morgantown, WV 26506-6302
- 16-18 Pulmonary Medicine and Office Spirometry for the Primary Care Physician, Vacation Village Resort, San Diego, California. Sponsored by Office of Continuing Medical Education, UC San Diego School of Medicine, (619) 452-3940

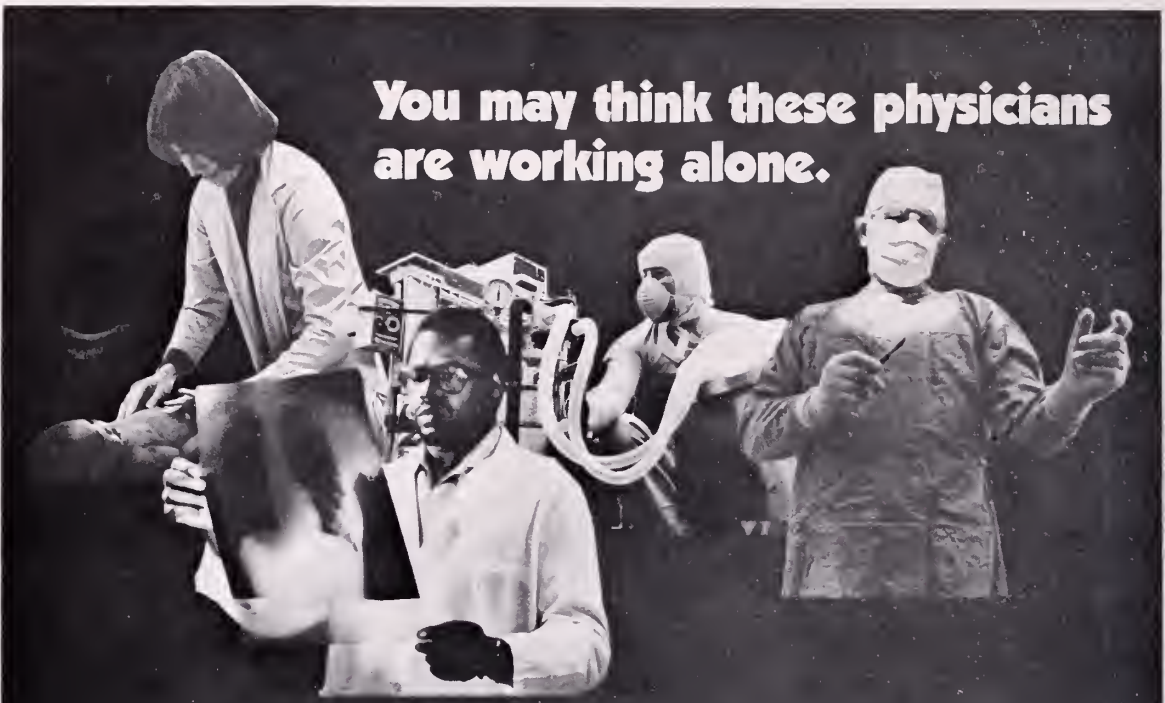
- 17-18 Fall Conference of Anorexia and Bulimia to Explore the Question, "Why Women?" The Center for the Study of Anorexia and Bulimia, New York, NY. Contact: Jerry Keucher (202) 595-3449 or Stephen Zimmer (212) 288-5472
- 20 SEVENTH ANNUAL TOPICS IN MEDICAL ONCOLOGY, Highlands Baptist Hospital, Louisville, Kentucky, "The Costs and Dilemmas of Cancer and Cancer Care" and "Systemic Coagulation Problems in Malignant Disease." Contact: Barbara Janes (502) 561-3432 or 561-3100

DECEMBER

- 3-5 National Institute of Health Consensus Development Conference: Limb-Sparing Treatment of Adult Soft-Tissue and Osteogenic Sarcomas. Contact: Peter Murphy (301) 468-6555
- 5-9 The Departments of Otolaryngology and Pediatrics, University of Pittsburgh presents The 11th Annual Symposium, EAR, NOSE AND THROAT DISEASES IN CHILDREN: A 1984 UPDATE. The Breakers, Palm Beach, Florida. Contact: Department of Otolaryngology, Children's Hospital of Pittsburgh, (412) 647-5466.
- 8-13 Rhinoplasty-1984, AAFPRS, Key Biscayne

JANUARY

- 19-25 Kentucky Academy of Family Physicians CME Cruise. Contact: Gayle Knopp, (502) 451-0370



**You may think these physicians
are working alone.**

But they really have a team behind them.

These physicians spend most of their day working independently in a one-to-one doctor/patient relationship. And chances are that as a physician, you do too.

But even though you can't see it, there's a strong team supporting and protecting the medical profession, affecting your practice while you see patients, research new drugs or perform surgery. That team consists of *your medical societies*.

The American Medical Association and your state and county medical societies believe in the value of teamwork; that only by working together can we, in the face of an increasingly complex professional environment, protect your right to make responsible decisions on how to practice medicine.

We also believe that all medical societies — county, state, and national — have certain tasks that the individual physician couldn't possibly assume — and shouldn't have to.

Tasks such as keeping government regulations from interfering with your practice by representing your interests at local and national levels. And challenging regulatory measures that threaten you and your patients' interests by mounting legal campaigns to defend your rights — up to the Supreme Court if necessary.

Why do we believe that *teamwork* means so much to *all* physicians — even those who work "alone"?

Because ... IT WORKS.

Join Your Medical Societies Today.

For more information, contact your state or county medical societies, or call the AMA collect at 312/751-6196. Or return the coupon below to your state or county medical society.

- ☐ Please send me information on AMA, county, and state society membership.
- ☐ I am a member of my county and state societies; please send me information on joining the AMA.

Name

Street

City State Zip

County

Copies of articles from this publication are now available from the UMI Article Clearinghouse.

For more information about the Clearinghouse,
please fill out and mail back the coupon below.

Yes! I would like to know more about UMI Article Clearinghouse.
I am interested in electronic ordering through the following
system(s):

- | | |
|--|---|
| <input type="checkbox"/> DIALOG/Dialorder | <input type="checkbox"/> ITT Dialcom |
| <input type="checkbox"/> OnTyme | <input type="checkbox"/> OCLC ILL Subsystem |
| <input type="checkbox"/> Other (please specify) _____ | |
| <input type="checkbox"/> I am interested in sending my order by mail. | |
| <input type="checkbox"/> Please send me your current catalog and user instructions for
the system(s) I checked above. | |

Name _____
Title _____
Institution/Company _____
Department _____
Address _____
City _____ State _____ Zip _____
Phone () _____

UMI Article
Clearinghouse

Mail to:
University Microfilms International
300 North Zeeb Road, Box 91
Ann Arbor, MI 48106

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month two months preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

COUNTRY LIVING AT ITS BEST. Looking forward to retirement? Historic Mercer County, 30 minutes to Lexington. 40 acres level prime soil. New barn with loft. Custom built two story brick country style home (5 years old). 3808 sq. ft. living space with guest house. Two basements. All electric with city water. One mile to boat dock on Herrington Lake no-wake zone. Executive home with all the amenities. Excellent horse farm potential. Reason for selling — health. Call or write for price and 7 pg. brochure with photo. For sale by owners, Dr. and Mrs. Glenn R. Powell, 275 Normans Camp Road, Harrodsburg, Kentucky 40330. (606) 748-9160.

Has your drinking progressed
from ease of use,
to unease with use
into disease and abuse?
for Help Call
**IMPAIRED PHYSICIANS
COMMITTEE**
502-459-9790

CHANGING ADDRESS?

**Please let us know at least
two months before chang-
ing your address.**

Send new address to:

**Journal of the Kentucky
Medical Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205**

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵

... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY
CONFIRMED BY EXPERIENCE

DALMANE[®]

flurazepam HCl/Roche

THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights²⁻⁴
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE[®]
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE[®]
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening, in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

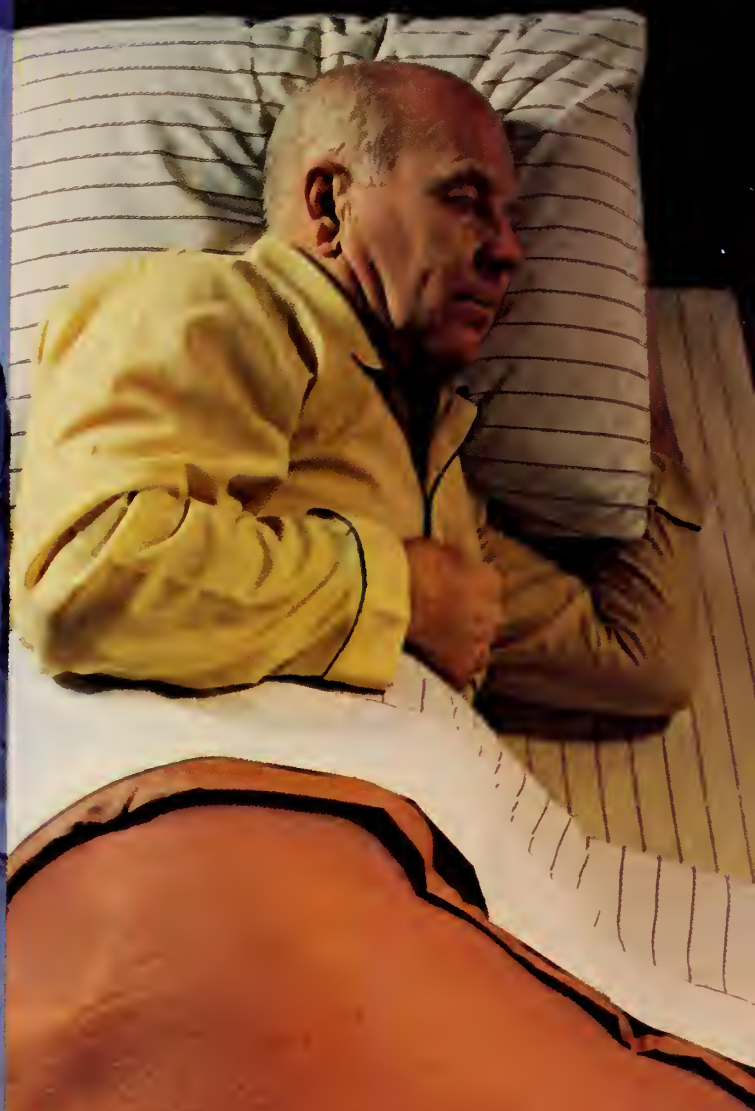
Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]
flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES



See preceding page for references and summary of product information.
Copyright © 1984 by Roche Products Inc. All rights reserved.

STACKS

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

V. 82 no. 12

*Happy Holidays
from the
KMA*

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

JAN 8 - 1985

Library of
College of Phys. of Phil.
19 South 22nd St.
Philadelphia, PA 19103

Volume 82, Number 12

December 1984

There is a Name for Quality Psychiatric Care.

And Here's Where That



Outstanding Leadership in Charter Medical Corporation.

Leadership Stands Out in Kentucky.

For many patients, the most effective treatment can be best delivered by psychiatrists, working with highly qualified professionals, in a freestanding hospital whose entire staff is dedicated to quality psychiatric care.

Commitment to this philosophy is exemplified in each and every Charter Medical Hospital. All across America. Without exception.

You can depend on the fact that the staff will work with you to design and implement an individualized treatment plan for your patient. Involvement of the patient's family in the treatment process will be encouraged. There will be regular communication, between the hospital and the referring professional, about the patient's status. All psychiatrists on staff are Board Certified or Board Eligible. There is a wide variety of therapies available to enhance individualized treatment. And every Charter Medical Hospital has been designed to provide a modern therapeutic environment to promote your patient's recovery.

Here's where you can expect to find this outstanding leadership in Kentucky.

Charterton Hospital

507 Yager Avenue
LaGrange, Kentucky 40031
(502) 222-7148

Beds: 66
Psychiatric Staff: 4
Programs: Adolescent and Adult Addictive Disease

Other Programs: Counseling and Intervention Services
in Louisville, KY

For further information about Charterton or admission
procedures, contact:

Medical Director: Thomas Cassidy, M.D.
Hospital Administrator: Ralph Suratt

Charter Ridge Hospital

3050 Rio Dosa Drive
Lexington, Kentucky 40509
(606) 269-2325

Beds: 80
Psychiatric Staff: 24
Programs: Adult, Adolescent and Child Psychiatric; Adult
Addictive Disease

For further information about Charter Ridge or admission
procedures, contact:

Medical Director: Verner Stillner, M.D.
Hospital Administrator: Jim Button



CHARTER
MEDICAL
CORPORATION

*Does your office
need a "physical"?*

KMCO can diagnose
your office needs
and prescribe the
proper remedy.



A subsidiary of KMA Physicians Services, Inc.

**KENTUCKY MEDICAL MANAGEMENT &
COMPUTER OPERATIONS**

recommended by Kentucky physicians as the
treatment of choice for reliable and economical
advice and support in all phases of office
management.

Our package of services includes consultation and
evaluation of office automation needs, and if a com-
puter is recommended, we have the staff expertise to
not only make sure the right computer is installed,
but will be there to insure its efficient operation. Your
computer package will be specially designed to
accomplish what you need—now, next month and
next year.



Contact:

Marty Paslick or Joe Witherington
3532 Ephraim McDowell Drive, Louisville, KY 40205
Toll Free 1-800-292-1675 or in Louisville 451-2095

JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 82, Number 12

December 1984

SCIENTIFIC

Chronic Traumatic Pseudoaneurysm of the
Thoracic Aorta: Recognition by Computed
Tomography

*John H. Woodring, M.D., Terri L. Daniel, M.D. and
Mark O. Bernardy, M.D.*

627

Aortic Thrombosis in the Neonate

*Constantine Mavroudis, M.D., Shirley Wilkerson, M.D.
and Diller B. Groff, M.D.*

631

EDITORIAL

MSB

639

SPECIAL FEATURES

Deceased Kentucky Physicians

642

Poem

643

Digest of Proceedings, 1984

KMA House of Delegates

661

KMA Constitution and Bylaws

761

KMA Organization Chart

769

KMA Committees, 1984-85

770

Index to Volume 82, Journal of KMA

777

ASSOCIATION

Highlights of 1984 KMA Annual Meeting

650

REGULAR FEATURES

President's Page

623

News

657

Members in the News

657

Cover by Brenda Piercefield

EDITOR A. Evan Overstreet, M.D. • DEPARTMENTAL EDITORS Paul C. Grider, Jr., M.D.; Scientific: Stephen Z. Smith, M.D.; Assistant Scientific • ASSISTANT EDITORS McHenry S. Brewer, M.D.; Milton F. Miller, M.D.; G. Randolph Schrodt, M.D.; David L. Stewart, M.D. • EXECUTIVE EDITOR Robert G. Cox • ASSOCIATE EXECUTIVE EDITOR Donald R. Chasteen • MANAGING EDITOR Donna M. Young • REGIONAL EDITORS Allen E. Grimes, Jr., M.D.; William W. Hall, M.D.; Gordon L. Hyde, M.D.; William B. Monnig, M.D.; Martin J. Raff, M.D.

Journal of the Kentucky Medical Association (ISSN 0023-0294) is issued monthly under the direction of the Board of Trustees. Second-class postage paid at Louisville, Kentucky and additional mailing offices. Yearly subscription rate: \$15 domestic, \$18 foreign. (Members \$7.50) single copies \$1.50. POSTMASTER: Send address change to *Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, KY 40205. (502) 459-9790. Copyright 1984, Kentucky Medical Association.

BOARD OF TRUSTEES 1984-1985

Officers

President	CHARLES C. SMITH, JR., M.D. 2109 Starmont Road, Louisville, KY 40207 (502) 583-5553	1985
President-Elect	WALLY O. MONTGOMERY, M.D. 2005 Broadway, Paducah, KY 42001 (502) 443-5371.....	1985
Immediate Past President.....	JAMES B. HOLLOWAY, JR., M.D. 1725 Harrodsburg Road, Lexington, KY 40504 (606) 278-2334	1985
Vice President	RICHARD F. HENCH, M.D. 2370 Nicholasville Road, Lexington, KY 40503 (606) 277-6145.....	1985
Secretary-Treasurer	S. RANDOLPH SCHEEN, M.D. 205 Baptist East Doctors Building, 3950 Kresge Way, Louisville, KY 40207 (502) 896-8803	1987
Chairman, Board of Trustees	NELSON B. RUE, M.D. 1109 State Street, Bowling Green, KY 42101 (502) 781-5111.....	1985
Vice Chairman.....	HENRY R. "HANK" BELL, M.D. East Main Street, Elkton, KY 42220 (502) 265-2574	1985
Speaker, House of Delegates.....	PETER C. CAMPBELL, JR., M.D. Suite 400-224 East Broadway, Louisville, KY 40202 (502) 583-9749	1986
Vice Speaker.....	THOMAS L. HEAVERN, M.D. 2019 Alexandria Pike, Highland Heights, KY 41076 (606) 441-7600.....	1986

Delegates to the AMA

FRED C. RAINEY, M.D., 912 Woodland Drive, Elizabethtown 42701 (502) 765-4147	1985
HAROLD C. HALLER, SR., M.D., 3828 Bardstown Road, Louisville 40218 (502) 459-4900.....	1986
DONALD C. BARTON, M.D., Doctors Park, Corbin, 40701 (606) 528-2124.....	1985
DWIGHT L. BLACKBURN, P.O. Box 46, Berea, 40403 (606) 986-2323	1984

Alternate Delegates to AMA

WALLY O. MONTGOMERY, M.D., 2005 Broadway, Paducah 42001 (502) 443-5371.....	1985
KENNETH P. CRAWFORD, M.D., 1000 Medical Arts Building, Louisville 40217 (502) 456-2180	1986
HAROLD L. BUSHEY, M.D., 406 Knox Street, Barbourville 40906 (606) 546-3024.....	1985
RUSSELL L. TRAVIS, 152 West Zandale, Lexington 40503 (606) 277-6143.....	1984

Trustees

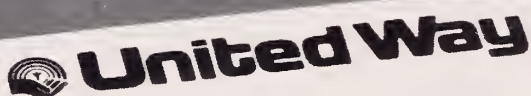
1st	JOHN D. NOONAN, M.D., P. O. Box 7206 Paducah 42001 (502) 443-6472	1986
2nd....	ALBERT H. JOSLIN, M.D., 1001 Center Street, Owensboro 42301 (502) 684-3265.....	1985
3rd....	HENRY R. "HANK" BELL, M.D., East Main Street, Elkton 42220 (502) 265-2574.....	1986
4th	THOMAS R. TAYLOR, M.D., 914 N. Dixie Avenue, Elizabethtown 42701 (502) 769-5551	1986
5th	BOB M. DeWEESE, M.D., 530 Audubon Medical Plaza, Louisville 40217 (502) 636-9216.....	1987
6th	NELSON B. RUE, M.D., 1109 State Street, Bowling Green 42101 (502) 781-5111	1987
7th	WILLIAM P. McELWAIN, M.D., 321 S. Main Street, Lawrenceburg 40342 (502) 839-6981	1985
8th	WILLIAM B. MONNIG, M.D., 201 Medical Plaza, 3104 Dixie Highway, Erlanger 41018 (606) 341-2672..	1987
9th	R. KENDALL BROWN, M.D., St. Luke Place, Georgetown 40324 (502) 863-1231	1985
10th	PRESTON P. NUNNELLEY, M.D., 2620 Wilhite Drive, Lexington 40503 (606) 278-0363.....	1985
11th	DON E. CLOYS, M.D., 634 Eastern Bypass, Richmond 40475 (606) 623-9113	1987
12th	DANNY M. CLARK, M.D., 401 Bogle Street, Somerset 42501 (606) 679-8391	1986
13th	GARNER E. ROBINSON, M.D., 700 Thirteenth Street, Ashland 41101 (606) 324-6181	1985
14th	RONALD D. HALL, M.D., Town & Country Center, Pikeville 41501 (606) 432-5532	1986
15th	EMANUEL H. RADER, M.D., P. O. Box 70, Pineville 40977 (606) 337-3559	1987

DECEMBER BUYERS' GUIDE FOR *JOURNAL OF KMA*

Blue Cross/Blue Shield of Kentucky	625
Charter Medical Corporation.....	614,615,616
Classified.....	658
Curtis 1000 Informational Systems	635
General Leasing Corporation.....	655
Jefferson County Medical Society.....	624
KMA Insurance Agency, Inc.....	646
KMA Insurance Agency, Inc.....	626
KMA Physicians Financial Services.....	649
KMCO	616
KMIC	638

Knoll Pharmaceutical	620,621,622
A.P. Lee Agency, Inc.....	658
Eli Lilly & Company	636
Louisville Baptist Hospitals, Inc.	637
Medical Protective Company.....	640
Physician Data Systems	645
Reynolds & Reynolds.....	659
Roche Laboratories.....	781,782
The Upjohn Company	647,648
U.S. Army Reserve	644

BUILD A BETTER COMMUNITY WITH YOUR BARE HANDS.



I Care!

When you give to United Way, your money works for you at home. It goes into community services for the elderly, local youth programs and foster care.

It also helps you run blood banks and facilities for the physically handicapped.

In fact, your donation helps provide literally hundreds of services that make life a lot better for people in your town.

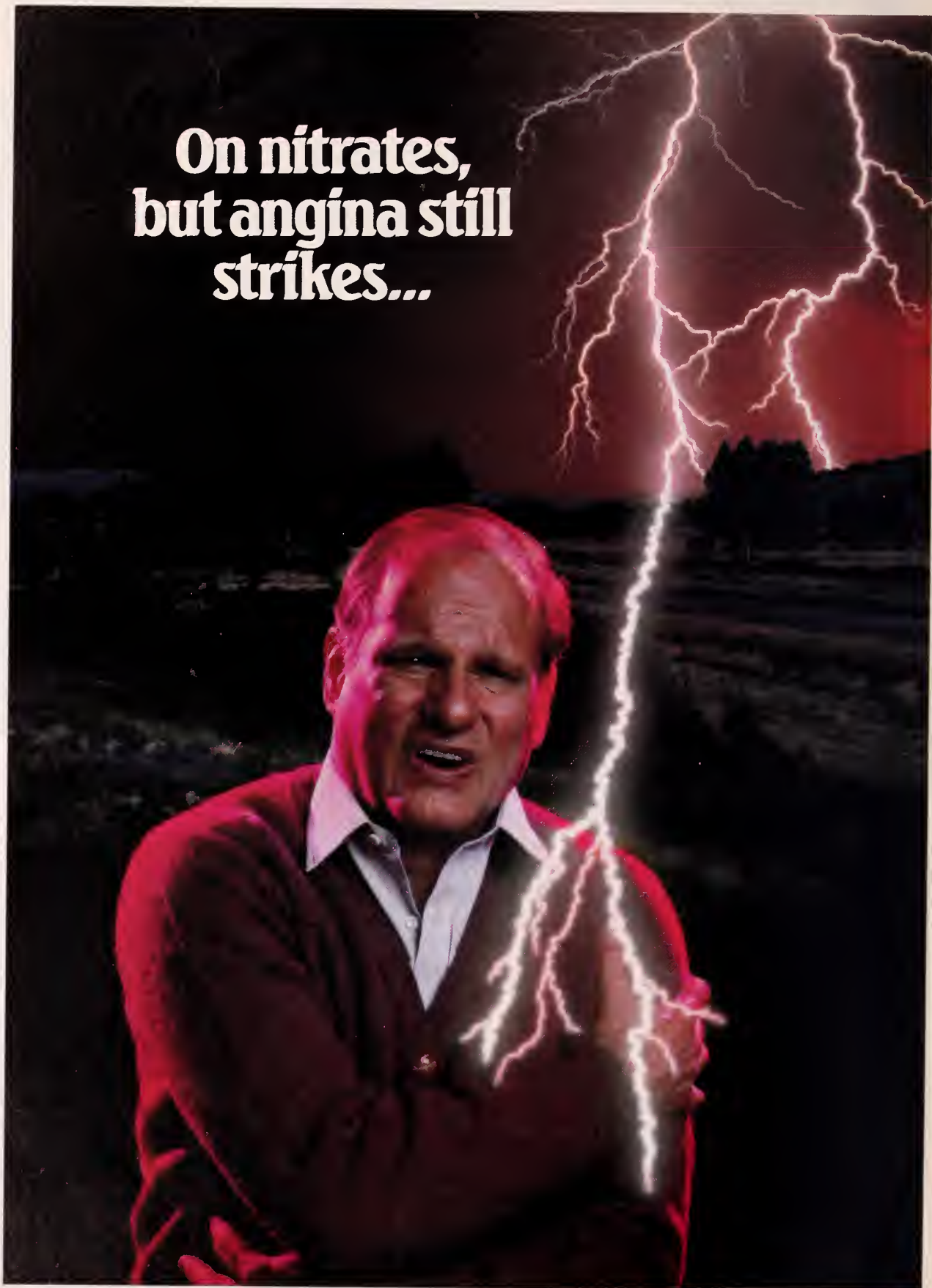
So when your United Way volunteer comes around, be generous.

A better community is in your hands.



United Way
THANKS TO YOU IT WORKS
FOR ALL OF US.

**On nitrates,
but angina still
strikes...**



After a nitrate, add ISOPTIN[®] (verapamil HCl/Knoll)

To protect your patients, as well as their quality of life,
add Isoptin instead of a beta blocker.

First, Isoptin not only reduces myocardial oxygen demand by reducing peripheral resistance, but also increases coronary perfusion by preventing coronary vasospasm and dilating coronary arteries — both normal and stenotic. These are antianginal actions that no beta blocker can provide.

Second, Isoptin spares patients the beta-blocker side effects that may compromise the quality of life.

With Isoptin, fatigue, bradycardia and mental depression are rare. Unlike beta blockers, Isoptin can safely be given to patients with asthma, COPD, diabetes or peripheral vascular disease. Serious adverse reactions with Isoptin are rare at recommended doses; the single most common side effect is constipation (6.3%).

Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

So, the next time a nitrate is not enough, add Isoptin... for more comprehensive antianginal protection without side effects which may cramp an active life style.



**ISOPTIN. Added
antianginal protection
without beta-blocker
side effects.**

ISOPTIN[®] TABLETS (verapamil HCl/Knoll) 80 mg and 120 mg

Contraindications: Severe left ventricular dysfunction (see *Warnings*), hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction <30%) or moderate to severe symptoms of cardiac failure. Control milder heart failure with optimum digitalization and/or diuretics before ISOPTIN is used. ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild, and controlled by decrease in ISOPTIN dose). Occasional elevations of liver enzymes have been reported, patients receiving ISOPTIN should have liver enzymes monitored periodically. Patients with atrial flutter/fibrillation and an accessory AV pathway (e.g., W-P-W or L-G-L syndromes) may develop a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion. AV block may occur (3rd degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema, and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with ISOPTIN. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, patients should be monitored closely. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function or in patients who have also recently received methylidopa. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patient carefully monitored. ISOPTIN may have an additive hypotensive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C.* There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block 3rd degree (0.8%), bradycardia: HR<50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%). The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: confusion, paresthesia, insomnia, somnolence, equilibrium disorders, blurred vision, syncope, muscle cramps, shakiness, claudication, hair loss, maculae, and spotty menstruation. Overall continuation rate of 94.5% in 1,166 patients. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in 80 mg and 120 mg sugar-coated tablets. July 1982 2068

 **KNOLL PHARMACEUTICAL COMPANY**
30 NORTH JEFFERSON ROAD, WHIPPANY, NEW JERSEY 07981

2195

TRUTH

When the North Atlantic Treaty Organization was formed in 1949, it was formed for one reason. To stop Soviet aggression in Europe.

TRUTH

The Warsaw Pact's conventional fighting capabilities far exceed that of European NATO forces.

TRUTH

In order to maintain peace and freedom in Europe, NATO has effectively maintained a policy of deterrence with the Soviet Union.

TRUTH

The past 35 years of peace have been one of the longest periods of European peace in recorded history.

TRUTH

The Soviets will not risk war. Unless they are sure they can win.

NATO.

**We need your support.
And the truth is, you need ours.**



A public service message from this magazine and the Advertising Council.

PRESIDENT'S PAGE



As the Holiday Season approaches we often hear the lament that a historic religious celebration has become a much more materialistic venture.

This sounds faintly familiar to physicians. What started as a "profession" of religious nature has become a "provider" in entrepreneurial jargon.

During the past 50 years, prepaid insurance, UCR payments, and inflation have been siren songs that tend to lure physicians from more idealistic pursuits to concern and even preoccupation with money in medicine. The monetarization of medicine has so infiltrated our health institutions that even historic religious affiliations mean little in hospital behavior. The proprietary and non-profit designations make little discernible difference in actual performance.

At the KMA level, our staff in Frankfort has reported to us the verbal barrage directed at them in regard to doctors and hospitals. The bulk of it represents individual incidents and anecdotes. But the cumulative effect is to "brand" a whole profession in the halls of government.

The problem of physician charges is difficult to deal with because the Federal Trade Commission expressly prohibits fixing prices in a profession. It also encourages advertising, and now we have it. Though the AMA fought to ban advertising in the 1930's because it led to exaggerated claims and deception, the federal government has brought it back.

There are studies which suggest that physicians practice in a manner to generate a certain income, and there are other studies which suggest that if we diagnose and treat all the disease out there, we will bankrupt the nation.

Two decades ago, analyses in North Carolina showed that 15 years or more out of medical school, the performance of a physician depended not so much on where you trained but who you were in terms of character traits.

As we enter this Holiday Season, I would urge us to look within ourselves and bring out those qualities of humanity and humility which lead to the most concern and sensitivity for our patients.

As we approach the New Year, I would urge us to look at our charging patterns from the standpoint of both unit price and utilization. We may not realize the income we once did, but we may have more time for our patients and our families. There are many more physicians with which to share the patient load.

Let us strive to profess always our commitment to the care of our patients. We have always occupied a special niche in society and I would like to see us responsibly keep it.

Charles C. Smith, Jr., M.D.
KMA President

*Man dies too soon, beside his works half-planned,
His days are counted and reprieve is vain.
Who shall entreat with Death to stay His hand,
Or cloak the shameless nakedness of Cain?*

*Send here, the bold, the seekers of the way,
The passionless, the unshakeable of soul,
Who serve the innermost mysteries of man's clay,
And ask no more than leave to make them whole.*

Rudyard Kipling

Introducing



A Wholly Owned Subsidiary of the Jefferson County Medical Society

The "paperwork explosion" and skyrocketing records storage costs have proven the value of an alternative to in-house records storage for many forward thinking physicians. Now Medical Society Services proudly announces a new and unique records management system called

MEDICAL MICROGRAPHICS

- A production facility to provide the highest quality microfilming of your inactive patient records, in the format you choose at a reasonable cost—or bulk storage of paper records if you prefer.
- A professionally staffed archive at the Medical Society to maintain your records to your standards of confidentiality and care.
- Retrieval, research and copying services available at the Medical Society.
- Gratis record storage for first year following retirement.
- Simplicity. One phone call arranges pick-up of documents at your office and a complete records management service to your specifications.
- Economy. No investment in expensive equipment and at the same time, convert hidden storage costs to a tax deductible business expense.
- Security. Medical Micrographics is a division of Medical Society Services, a wholly owned subsidiary of the Jefferson County Medical Society.

For more information call Cheri K. McGuire, Assistant Executive Director, at (502) 589-2001, 101 W. Chestnut St., Louisville, Ky 40202.

³ Reg. Mark Delta Dental Plans Assn.

WHY NOT THE BEST?

With so many life insurance companies in the marketplace today, sometimes it's difficult to choose the one that is best for you.

At American Physicians Life, we offer a comprehensive range of competitively priced insurance products designed with the successful professional in mind including an innovative universal

life plan, individual and group term life coverages, qualified pension programs, high-yielding annuity plans, and attractive disability income programs.

APL is represented by the most knowledgeable and professional insurance agents in the industry in addition to being staffed by home office personnel who are dedicated to providing

the quality of service a successful professional expects and deserves.

When you are thinking about life insurance protection or planning for a secure future, why not choose a company who understands your particular protection needs—why not choose the best?



AMERICAN PHYSICIANS LIFE

For all your life insurance needs.

A SUBSIDIARY OF PHYSICIANS INSURANCE COMPANY OF OHIO

Chronic Traumatic Pseudoaneurysm of the Thoracic Aorta: Recognition by Computed Tomography

JOHN H. WOODRING, M.D., TERRI L. DANIEL, M.D. AND MARK O. BERNARDY, M.D.

A case of chronic traumatic pseudoaneurysm of the thoracic aorta is presented in which the diagnosis was made by computed tomography (CT). Findings at CT included the presence of a large pseudoaneurysmal sac arising from the aorta just distal to the left subclavian artery, identification of the torn edge of the aorta as a thin lucent line surrounded by contrast on both sides, and filling of part of the lumen of the pseudoaneurysm by mural thrombus. These findings combined with a history of crushing injury to the thorax 23 years in the past made the diagnosis of chronic traumatic pseudoaneurysm. Due to the unpredictable and often progressive nature of these aneurysms surgical correction is the recommended therapy of choice, even if the patient is asymptomatic.

In the setting of blunt chest trauma, rupture of the thoracic aorta is a major cause of morbidity and mortality. It has been estimated that 10-15% of all traffic fatalities occurring in this country are due to injuries of the thoracic aorta.¹ While 80-90% of those individuals who sustain major thoracic arterial injury die instantaneously,^{2,3,4} 10-20% will survive long enough to come to medical attention. Of those patients surviving the initial injury, 49% will die within the first 24 hours post injury and 90% will have died within four months if surgical repair is not undertaken. Only 2% of survivors (or 0.3% of individuals with aortic rupture) will

live long enough to develop a chronic pseudoaneurysm.^{2,4}

Computed tomography has been shown to be useful in the evaluation of mediastinal abnormalities including mediastinal hemorrhage^{5,6,7} and abnormalities of the thoracic aorta including atherosclerotic aneurysms and aortic dissection.⁷ Recently, Heiberg *et al*⁸ have demonstrated the ability of computed tomography to identify acute traumatic aortic laceration. We wish to report a case of chronic traumatic pseudoaneurysm of the thoracic aorta in which the findings were demonstrated by computed tomography of the thorax.

Case Report

The patient is a 62-year-old male who was rendered paraplegic in a mining accident in 1959, in which he received a severe crushing injury to his thorax and lumbar spine. He had long standing adult-onset diabetes mellitus and a five-year history of diabetic foot ulcers. In March, 1982, he was admitted to the University of Kentucky Medical Center with osteomyelitis of the left great toe. A posteroanterior chest radiograph obtained upon admission to the hospital (Figure 1) revealed a large mass arising from the region of the arch of the thoracic aorta. The lateral chest radiograph (not shown) indicated that this mass was situated distal to the origin of the left subclavian artery. Healed fractures of the left third through eighth ribs were also identified. Based upon these findings and the history of thoracic trauma 23 years in the past, a presumptive diagnosis of chronic traumatic pseudoaneurysm of the thoracic aorta was



Fig 1: Posteroanterior chest radiograph obtained on admission reveals large mass adjacent to the arch of the aorta (arrows) and old fractures of the left third through eighth ribs.

made. Physical examination of the thorax was normal; he had mild hypertension with a blood pressure of 150/80 mm Hg.

Computed tomography (Figures 2 and 3) was performed to confirm the diagnosis of chronic aortic pseudoaneurysm. A contrast enhanced CT examination of the thorax demonstrated a 5.5 cm pseudoaneurysm of the thoracic aorta arising just distal to the origin of the left subclavian artery. Most of the lumen of the pseudoaneurysm was filled with mural thrombus.

The patient was subsequently offered surgical resection of his thoracic aortic pseudoaneurysm but he refused the surgery. He underwent amputation of the left great toe and was subsequently discharged from the hospital.

Discussion

Pathologically, the extent of damage to the aortic wall following trauma varies from simple subintimal hemorrhage to complete laceration of the aorta.² Parmley *et al*² indicate that there are few cases of traumatic laceration limited to the intima and media of the aortic wall; they report that in the majority of cases all three layers of the aortic wall are lacerated with complete disruption of most of the circumference of the aortic wall. In a few cases associated dissection of the aorta may follow intimal and medial laceration.² Aneurysmal

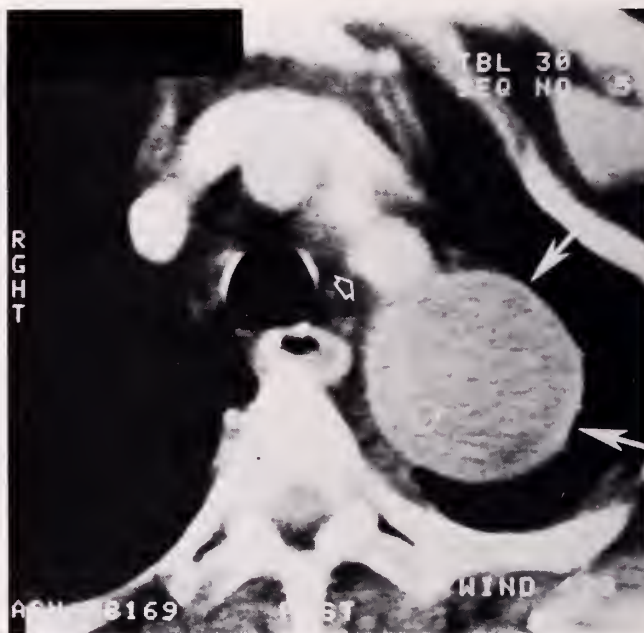


Fig. 2: Contrast enhanced CT section obtained just above the level of the arch of the thoracic aorta demonstrates a non-enhancing mass (arrows) adjacent to the left subclavian artery (open arrow).

bulging of the aortic wall following laceration of the intima and media or complete disruption of the aortic wall is termed a false aneurysm or pseudoaneurysm.²

Survival of traumatic rupture of the thoracic aorta without surgical intervention is rare. Without surgery only 2% of patients surviving the initial injury will live long enough to develop a chronic pseudoaneurysm.^{2,4} If the patient survives for several weeks a fibrous wall begins to form around the pseudoaneurysm;⁴ however, the degree of fibroplasia in the wall is usually not sufficient to prevent rupture for at least three months following the initial injury. During this period of time even the slightest stress, such as straining at stool, may precipitate a fatal hemorrhage.⁴

Despite the fact that a fibrous wall eventually forms around a traumatic pseudoaneurysm, the natural course of pseudoaneurysms is one of progressive enlargement and delayed rupture. Bennett and Cherry⁴ in a review of the English and French literature between 1950 and 1965 found 105 chronic (more than three months) traumatic pseudoaneurysms. The natural history of thoracic aortic pseudoaneurysms as described by Bennett and Cherry is as follows. Forty-one percent showed no evidence of symptoms or progressive enlargement and could be considered "stable." This figure may overestimate the number of stable chronic pseudoaneurysms since the period of follow-up in many of these cases was short



Fig. 3: Contrast enhanced CT section obtained at the level of the arch of the aorta (Ao) demonstrates contrast extending from the aorta into the lumen of the pseudoaneurysm (arrow). The torn edge of the aortic wall is identified as a linear lucency surrounded by contrast on both sides (arrowheads). The lumen of the pseudoaneurysm is filled with a considerable amount of mural thrombus accounting for the non-enhancing nature of the majority of the pseudoaneurysm. T=mural thrombus.

(Table I). Twenty-one percent showed evidence of progressive enlargement radiographically. Fifty percent produced symptoms including pain, dyspnea, cough, hoarseness, and dysphagia (Table I). The onset of symptoms is indicative of expansion of the pseudoaneurysm; the tendency for symptoms to increase in severity with time and for additional ones to appear is further evidence of progressive enlargement of the pseudoaneurysm.⁴ Nine pseudoaneurysms (9%) presented with delayed rupture.⁴ The highest incidence of delayed rupture occurred in the first year after injury (Table I), and decreased thereafter. It is notable that delayed rupture occurred in one case 27 years after the original accident.⁴ The relatively low rate of delayed rupture in their series is attributable mainly to the fact that premonitory symptoms almost always precede rupture thereby allowing time for surgical intervention.⁴ Other complications of chronic pseudoaneurysms include superimposed bacterial infection, which is associated with a high mortality rate and distal embolization of thrombus from the pseudoaneurysmal sac.⁴

Because of the success of operative management, the low mortality rate of surgical intervention, and the unpredictable and often progressive nature of these pseu-

TABLE I.
Chronic traumatic pseudoaneurysms — 105 cases
(adapted from Bennett and Cherry, 1967)

	Number of Cases
A. No symptoms or enlargement	43 (41%)
Duration:	
3 - 12 months	10
1 - 5 years	15
5 - 10 years	6
> 10 years	12
B. Complicated pseudoaneurysms	62 (59%)
Progressive enlargement	22 (21%)
Symptoms	53 (50%)
Pain	37
Dyspnea	15
Cough	10
Hoarseness	9
Dysphagia	3
Delayed rupture	9 (3%)
3 - 12 months	3
1 - 5 years	2
5 - 10 years	1
10 - 20 years	1
> 20 years	1
not specified	1

doaneurysms, resection is the preferred therapy for chronic traumatic aortic pseudoaneurysms, even if asymptomatic.⁴ Bennett and Cherry⁴ indicate that only in the very poor-risk patient should observation be considered as an alternative to surgery.

Radiographically, a chronic pseudoaneurysm usually presents as a well-defined mass arising in the area of the arch of the aorta (Figure 1). If large, the trachea may be displaced to the right and the left mainstem bronchus may be downwardly displaced. If serial radiographs are available, progressive enlargement may be documented. In some cases a thin rim of calcification may be present along the periphery of the pseudoaneurysm. The lateral chest radiograph demonstrates that the mass arises from the posterior aspect of the aortic arch usually distal to the left subclavian artery. Other evidence of remote thoracic trauma (*i.e.*, old fractures of the bony thorax) is supportive evidence of the diagnosis (Figure 1). In our case the presence of a large mass arising from the posterior aspect of the thoracic aortic arch coupled with multiple old rib fractures and a history of prior crushing injury to the thorax were virtually diagnostic of chronic traumatic pseudoaneurysm of the aorta.

In the past, aortography has been required to confirm the diagnosis of aortic rupture. Experience with computed tomography (CT) in the evaluation of aortic trauma is just beginning. Recently, Heiberg *et al*⁸ reported their experience with CT in the evaluation of patients

with suspected aortic trauma. A diagnosis of aortic transection was made by CT in four of 10 patients with acute multiple trauma suspected of having thoracic aortic injuries.⁸ There were no false-negative or false-positive examinations. CT findings in these four cases of acute aortic rupture included: an increase in caliber of the aortic lumen compared to more proximal normal aorta, saccular outpouching of the posterior aspect of the aorta, identification of the torn edge of the aortic wall as a linear lucency with contrast on both sides, and evidence of aortic dissection below the level of laceration.⁸ Mural thrombus in the pseudoaneurysm was not identified in cases of acute aortic laceration. Although the experience with CT in acute aortic laceration is small the results appear very promising.

To our knowledge, there have been no reports of chronic traumatic pseudoaneurysms diagnosed by CT and this probably reflects the rarity of this entity compared to its acute counterpart. The CT findings in our case are very similar to those described in acute aortic laceration (Figures 2 and 3). The pseudoaneurysm appeared as a large outpouching from the posterior aortic arch distal to the left subclavian artery; the torn edge of the aortic wall was identified as a linear lucency with contrast on both sides. Filling of a large portion of the lumen of the pseudoaneurysm by mural thrombus indicates the chronic nature of the lesion; of course, the history that the original injury occurred 23 years in the past indicates the pseudoaneurysm is chronic. Although calcification of the rim of the pseudoaneurysmal sac was not present in our case, this would be an expected CT finding in many chronic pseudoaneurysms.

In summary, we present a case of chronic traumatic pseudoaneurysm of the aorta diagnosed by CT. The CT findings are similar to those described in acute aortic laceration but may be differentiated by a history of remote trauma, the presence of mural thrombus in the pseudoaneurysmal sac, and calcification in the fibrous wall of the pseudoaneurysm. Because of the unpredictable and progressive nature of these pseudoaneurysms, surgery is the treatment of choice unless the patient is a very poor operative risk.

References 1. Greendyke RM. Traumatic rupture of the aorta: special reference to automobile accidents. *JAMA* 195;119-122, 1966. 2. Parmley LF, Mattingly TW, Manion WC, Jahnke Jr. EF. Non-penetrating traumatic injury of the aorta. *Circulation* 17:1086-1101, 1953. 3. McClenathan JE, Brettschneider L. Traumatic thoracic aortic aneurysms. *J Thorac Cardiovasc Surg* 50:74-82, 1965. 4. Bennett DE, Cherry JK. The natural history of traumatic aneurysms of the aorta. *Surgery* 61:516-523, 1967. 5. Toombs BD, Sandler CM, Lester RG. Computed tomography of chest trauma. *Radiology* 140:733-738, 1981. 6. Toombs BD, Lester RG, Ben-Menachem Y, Sandler CM. Computed tomography in blunt trauma. *Radiol Clin North Am* 19:17-35, 1981. 7. Egan RJ, Neiman HL, Herman RJ, Malave SR, Sanders JH. Computed tomography in the diagnosis of aortic aneurysm dissection or traumatic injury. *Radiology* 136:141-146, 1980. 8. Heiberg E, Wolverson MK, Sundaram M, Shields JB. CT in aortic trauma. *AJR* 140:1119-1124, 1983.

From the Department of Diagnostic Radiology, Albert B. Chandler Medical Center, University of Kentucky, 800 Rose Street, Lexington, Kentucky 40536-0084

Aortic Thrombosis in the Neonate

CONSTANTINE MAVROUDIS, M.D., SHIRLEY WILKERSON, M.D.

AND DILLER B. GROFF, M.D.

The incidence of neonatal aortic thrombosis has increased due to umbilical artery catheter use. Other etiologic factors, however, include sepsis, congenital heart disease and aortic inflammation. We present three patients with aortic occlusion. In two patients, the thrombosis was not recognized and the patients died. In the third patient, multiple laparotomies and aortic thrombectomies resulted in revascularization of the lower extremities using a Gortex patch aortoplasty. Aortic occlusion in the newborn has a grave prognosis. Aortic thrombectomy can be done effectively.

The incidence of neonatal arterial occlusion has increased since the introduction of umbilical artery catheterization by Nelson and associates¹ in 1962. Although angiographic thrombus formation has been shown to commonly occur,² clinical manifestations of arterial occlusion have been less frequent and usually do not result in ischemic insults due to abundant collateral circulation and eventual thrombus resorption.^{3,4} Rarely, however, aortic occlusion can occur due to umbilical artery catheterization^{5,6} or other unexplained idiopathic reasons³⁻¹⁰ that result in 100% mortality for neonates and greater than 90% mortality for older babies⁴ when nonoperative therapy is used.

Recently, Flanigan,¹¹ O'Neill,¹² McFaul,¹³ and Henry¹⁴ reported 10 infants with aortic occlusion who were treated by embolectomy after having presented with lower limb ischemia, absent femoral pulses and congestive heart failure with a 50% survival rate. Herein, we describe three similar patients with neonatal aortic occlusion. Unrecognized aortic occlusion caused death in two patients. The other patient survived successful embolectomy with an aortic Gortex patch graft.

Case No. 1

A 2920-g white male neonate was born at term to a 23-year-old prima-gravida delivered by emergency Cesarean section due to fetal distress. The amniotic fluid was meconium stained. Apgar scores were three and six at one and five minutes, respectively. The infant was placed on oxygen and an umbilical artery catheter was placed. Because of increased respiratory distress, the infant was subsequently intubated and transferred to the intensive care nursery.

A chest roentgenograph on admission to the intensive care nursery revealed minimal infiltrates compatible with mild meconium aspiration. The umbilical artery catheter tip was noted to be at the bifurcation of the aorta, and the catheter was promptly removed. The child was weaned progressively from assisted ventilation and on the sixth day of life developed marked abdominal distention and bilious, hematest-positive, nasogastric drainage. A roentgenograph revealed free abdominal air requiring exploratory laparotomy, at which time a small bowel resection was performed because of massive bowel necrosis. A small area of bowel with questionable viability was retained. The child was begun on total parenteral nutrition, and on the 17th day of life, contrast studies revealed mechanical obstruction that resulted in exploratory laparotomy. At this time, no viable bowel was noted and the abdomen was closed. The patient died on the 26th day of life. Postmortem examination revealed an organized aortic thrombus and occlusion of the celiac, superior and inferior mesenteric arteries.

Case No. 2

A 3430-g white female neonate was born after a 35-week gestation to a 27-year-old gravida 2, para 1 mother, whose only previous child had congenital rubella. The pregnancy was complicated by chronic maternal hypertension requiring Aldomet. The infant was delivered by repeat Cesarean section under spinal anesthesia and had Apgar scores of six and six at one and five minutes,



Fig. 1: Digital venous imaging shows aortic occlusion in patient #3. Both renal arteries, the inferior mesenteric artery and middle sacral artery are clearly noted.

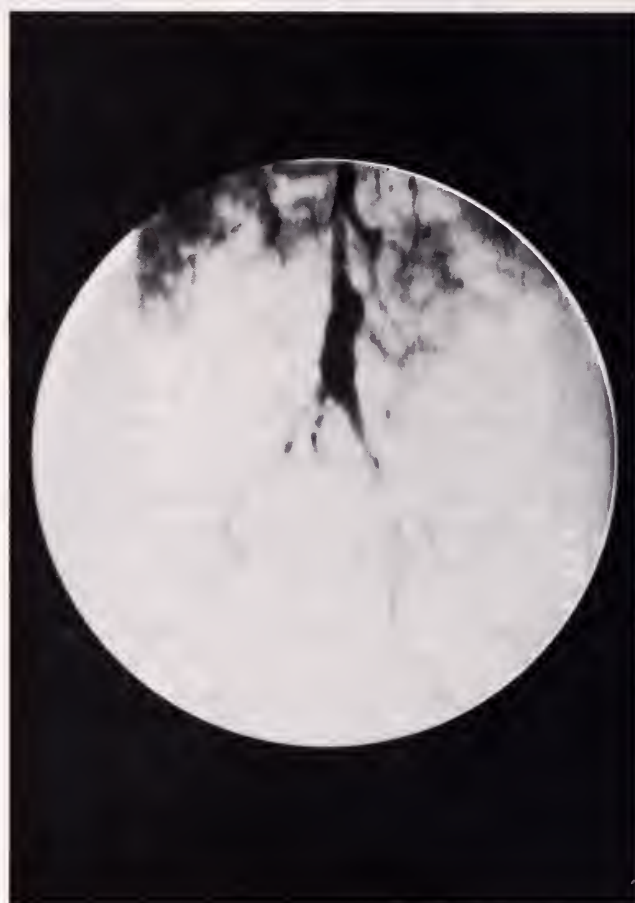


Fig. 2: Digital venous imaging shows the distal aorta and common iliac arteries after aortic thrombectomy and Gortex patch aortoplasty.

respectively. The infant developed moderate respiratory distress shortly after delivery and was transferred to the intensive care nursery where endotracheal intubation and assisted ventilation were begun for moderate hyaline membrane disease. An umbilical artery catheter was placed and noted to be in satisfactory position above the diaphragm. The child slowly improved but on the seventh day of life developed a significant metabolic acidosis and evidence of a patent ductus arteriosus. Congestive heart failure was managed medically with fluid restriction, diuretics and Lanoxin, but the child's condition continued to deteriorate. On the 10th day of life, the child developed oliguric renal failure, refractory hypertension and unexplained direct hyperbilirubinemia. The infant underwent cardiac catheterization on the 12th day of life revealing a large patent ductus arteriosus, atrial septal defect and pulmonary hypertension. Ligation of the patent ductus arteriosus was performed, but the infant continued to have clinical symptoms of congestive heart failure. The renal failure

Table 1. Speculative etiologic factors
Sepsis
Congenital heart disease
Intrinsic aortic inflammation
Umbilical artery catheterization

slowly resolved, but the child's liver function continued to deteriorate. No etiology of the liver failure was found, and on the 20th day of life, liver biopsy revealed subacute hepatic necrosis. The infant subsequently developed severe coagulopathy and massive ascites and died on the 35th day of life. Postmortem examination revealed an aortic thrombosis with occlusion of the celiac artery, superior and inferior mesenteric arteries.

Case No. 3

A 2722-g white male neonate was born at term to an 18-year-old mother whose pregnancy was uncomplicated. The child was born by vaginal cephalic delivery

Table 2.
Review of operations and results for childhood and neonatal aortic thrombosis

Author	Age	Operation	Etiology of Thrombus	Comments
Hellestrom (1916) ¹⁵	12 yrs	Aortic thrombectomy	Intracardiac thrombus	Died within 24 hrs necropsy revealed new thrombus in aorta post thrombectomy
Marks et al. (1953) ¹⁶	11 mos	Aortic thrombectomy	Presumed sepsis	Died within 24 hrs
Verhagen et al. (1961) ¹⁷	16 mos	Aortic thrombectomy	Fever and dehydration	Survived with right foot amputation
Raffensperger et al. (1964) ¹⁰	9 mos	Aortic thrombectomy	Embolus from patent ductus arteriosus	Survived
Altrup et al. (1978) ⁹	3 days	Aortic thrombectomy	No etiology	Survived
Henry et al. (1981) ¹⁴	1 day 4300 g	Aortic thrombectomy	Umbilical artery catheter	Died
Henry et al. (1981) ¹⁴	1 day 3400 g	Aortic thrombectomy	Umbilical artery catheter	Died
McFaul et al. (1981) ¹³	1 day 4600 g	Aortic thrombectomy	Discrete membrane at the area of ductus arteriosus	Died
McFaul et al. (1981) ¹³	1 day 2800 g	Aortic thrombectomy under circulatory arrest	No etiology	Died
O'Neill et al. (1981) ¹² (4 patients)	Not stated	Aortic thrombectomy	Umbilical artery catheter	Alive (3) Died (1)
Flanigan et al. (1982) ¹¹	9 days 3170 g	Aortic thrombectomy	Umbilical artery catheter	Survived with renal infarct and hypertension
Flanigan et al. (1982) ¹¹	1 day 2730 g	Aortic thrombectomy	Umbilical artery catheter	Survived with no hypertension

with Apgar scores of six and seven at one and five minutes, respectively. Thick meconium staining was noted. Subsequent physical examination revealed mild cyanosis of the right lower extremity. The initial hospital course was unremarkable except for a mild indirect hyperbilirubinemia on the third day of life. On the fifth day of life, the discoloration of the right lower extremity worsened and the child was transferred to the intensive care nursery.

The infant was noted to have decreased subcutaneous fat. The right femoral and dorsalis pedis pulses were absent by palpation and Doppler examination. There was obvious discoloration of the right lower quadrant and right scrotal sac, and the right lower extremity was cyanotic and cooler than the left. Admission laboratory results revealed a peripheral hematocrit of 60% with a prothrombin time of 13.3 seconds (control 11.4 seconds), a partial thromboplastin time of 30.3 seconds and a fibrinogen of 191 mg%. Antithrombin III and plasminogen levels were slightly below normal range. Within several hours, the child's condition deteriorated with loss of the left femoral pulse and intermittent dis-

coloration of both lower extremities. An umbilical artery catheter was then placed, and flush aortography was noncontributory. A digital vascular imaging study revealed occlusion of the distal abdominal aorta. At laparotomy, an organized clot extending from the level of the superior mesenteric artery to the iliac arteries was removed. Postoperatively, the child had good circulation in the legs with positive Doppler pulses in both femoral arteries but no pulses in the popliteal or dorsalis pedis arteries. On the fourth postoperative day, the child sustained a pulmonary hemorrhage and evidence of congestive heart failure was noted. An echocardiogram revealed a left atrium to aortic route ratio of 1.6:1 with 21% contractility, and a presumed diagnosis of congestive heart failure due to ascending clot formation in the aorta was entertained. A second exploratory laparotomy was undertaken with removal of a large clot from the aorta with extension to the renal arteries. Little postoperative improvement was noted, and on the following day, the child underwent a third laparotomy and embolectomy using Fogarty catheters. At this time, Gortex patch graft was used to enlarge the

outflow of the distal aorta to the common iliac arteries at the bifurcation of the aorta. Following this procedure, the child was noted to have femoral dorsalis pedis and posterior tibial pulses bilaterally. Heparin therapy was continued for 10 days postoperatively.

The child's postoperative course was complicated by severe renal hypertension requiring treatment with multiple antihypertensive medications. A renal scan showed a small nonfunctioning left kidney and a normally functioning right kidney. The infant required 26 days of assisted ventilation and was maintained on total parenteral nutrition for 40 days before initiation of enteral feedings. At present, one year after operation, the child is enjoying normal development with present pulses. Blood pressure measurements in the upper and lower extremities are identical.

Discussion

The consequences of untreated aortic occlusion in the neonate and infant are grave. Speculative etiologic factors (Table 1) have been linked to clinical hypercoagulable states, intrinsic aortic inflammatory disease and postmortem evidence of thrombosis propagation from a patent ductus arteriosus or myocardial emboli associated with congenital heart disease. Recently, the incidence of neonatal aortic thrombosis has increased due to umbilical artery catheterization.^{2,12,13} Consequently, the clinician may expect to encounter this complication more frequently. Etiologic factors may be (1) obvious (umbilical artery catheterization), (2) presumed (patent ductus arteriosus, myocardial embolus, sepsis), or (3) absent.

Diagnosis of aortic thrombosis in the neonate requires a high degree of clinical suspicion to detect lower limb ischemia, motor and sensory dysfunction, renal impairment and congestive heart failure, which may mimic severe coarctation of the aorta.¹¹ Diagnostic procedures include arteriography, nuclear aortography, Doppler flow measurements and digital venous imaging (DVI). Our surviving patient demonstrated all the aforementioned signs and DVI was used to confirm the diagnosis and successful resultant treatment (Figs. 1,2).

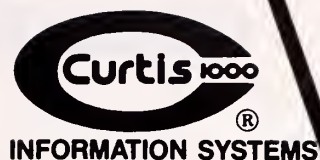
Review of the literature revealed 15 patients⁹⁻¹⁷ who underwent aortic thrombectomy (Table 2). Most of the patients presented in infancy and the etiologic factors were varied. Techniques of thrombectomy have included simple irrigation and Fogarty catheter embolectomy. Survival is dependent on early recognition and expeditious surgical intervention. Complications have

included infection, amputation, partial renal infarction and hypertension.

Arterial thrombosis in the neonate is usually managed by heparin therapy and observation. Rich collateral circulation quickly develops that rarely places the extremity at risk. However, the important differentiation between distal arterial thrombosis and aortic occlusion must be made since the natural history of the latter is grave. We have presented a patient in whom patch aortoplasty was necessary to improve aortic outflow and ensure patency. Normal aortic growth is anticipated based on the experience of Gortex patch aortoplasty for coarctation of the aorta.

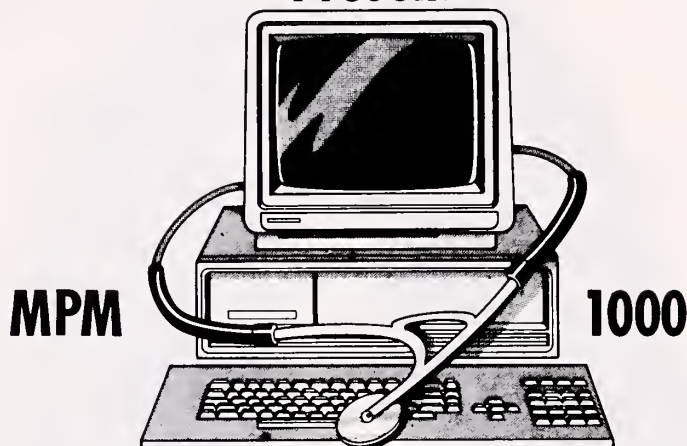
- References** 1. Nelson NM, Prod'homme LS, Cherry RB, et al: Pulmonary function in the newborn infant. *Pediatrics* 30:975-989, 1962. 2. Neal WA, Reynolds JW, Jarvis C, et al: Umbilical artery catheterization Demonstration of arterial thrombosis by aortography. *Pediatrics* 50:6-13, 1972. 3. Gross RE: Arterial embolism and thrombosis in infancy. *Am J Dis Child* 70: 61-73, 1945. 4. Rothstein JL: Embolism and thrombosis of the abdominal aorta in infancy and childhood. *Am J Dis Child* 49:1578-1606, 1935. 5. Marsh JL, King W, Barrett C, et al: Serious complications after umbilical artery catheterization for neonatal monitoring. *Arch Surg* 110:1203-1208, 1975. 6. Bjarke B, Herin P, Blomback M: Neonatal aortic thrombosis. *Acta Paediatr Scand* 63:297-301, 1974. 7. Moberg A, Reinand T: Aortic thrombosis in infancy. *Acta Pathol Microbiol Scand* 39:161-167, 1956. 8. Stout C, Koehl G: Aortic embolism in a newborn infant. *Am J Dis Child* 120:74-76, 1970. 9. Alstrup P, Anderson H, Schmidt KG: Neonatal aortic thromboembolism. *Dan Med Bull* 25:261-264, 1978. 10. Raffensperger JG, D'Cruz IA, Hastreiter AR: Thrombotic occlusion of the bifurcation of the aorta in infancy. *Pediatrics* 34:550-553, 1964. 11. Flanagan DP, Stolar CJH, Pringle KC, Schuler JJ, Fisher E, Vidyassager D: Aortic thrombosis after umbilical artery catheterization, successful surgical management. *Arch Surg* 117:371-374, 1982. 12. O'Neill JA Jr, Neblett WW III, Born ML: Management of major thromboembolic complications of umbilical artery catheters. *J Pediatr Surg* 16:972-977, 1981. 13. McFaul RC, Keane JF, Nowicki ER, Castaneda AR: Aortic thrombosis in the neonate. *J Thorac Cardiovasc Surg* 81:334-337, 1981. 14. Henry CG, Gutierrez F, Lee JT, et al: Aortic thrombosis presenting as congestive heart failure: An umbilical artery catheter complication. *J Pediatr* 5:820-822, 1981. 15. Hellestrom H, Zentralb J: *Chir* 1916, quoted by Rothstein⁴. 16. Marks C, Fehler BM: Aortic occlusion in infancy. *Br Med J* 1:709-710, 1953. 17. Verhagen AD, Moschakis E: Saddle embolus in an infant with cyanotic heart disease. *Ann Surg* 153:209-213, 1961.

From the Departments of Surgery and Pediatrics, University of Louisville School of Medicine, Louisville, Kentucky. Address reprint requests to: Constantine Mavroudis, M.D., Department of Surgery, Ambulatory Care Building, University of Louisville, Louisville, KY 40292.



FOR SMA MEMBERS

Present



MEDICAL PRACTICE MANAGEMENT SYSTEMS
Available through SMA Physicians Purchasing Program

*Discounts on IBM and Texas Instruments Hardware *Discounts on Software *Now Available on New IBM PC/AT

MPM 1000 the complete system includes:

- *Hardware (IBM or Texas Instruments)
- *Software
- *Training
- *After Sale Support
- *Solo, Group Practice or Clinic Systems

Designed to work in all aspects of practice management

Standard Programs include:

- *Patient Profiles
- *Accounts Receivable/Billing
- *Insurance Processing/Tracking
- *Collection System
- *Recall Notices
- *Full line of Management Reports
- *And much more . . .

Optional Programs include:

- *Word Processing
- *General Ledger
- *Accounts Payable
- *Payroll
- *Inventory Control
- *Appointment Scheduling

Want more information? Call or write for detailed brochure Call Southern Medical at 205-945-1840

or

Curtis 1000 Information Systems at
800-241-4780 in Ga 404-491-1000

YES!

I would like to know more about the MPM 1000.

- ☐ SMA Member
- ☐ I am not an SMA Member

Name _____

Address _____

City _____

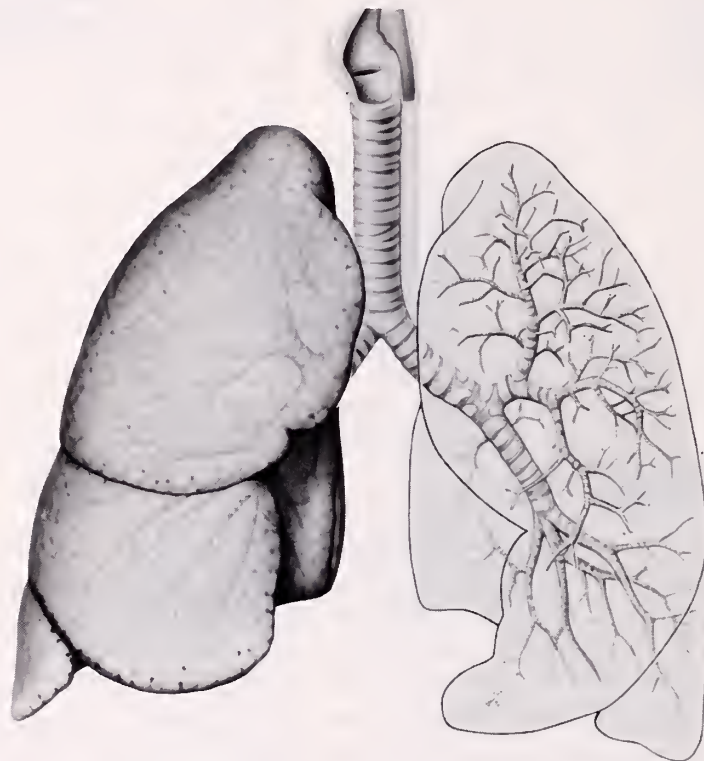
State _____

Zip _____

Office Phone _____

Mail to: CURTIS 1000 INFORMATION SYSTEMS
2296 Henderson Mill Road
Suite 402
Atlanta, Georgia 30345

Consider the causative organisms...



Ceclo[®]
cefactor

250-mg Pulvules[®] t.i.d.

**offers effectiveness against
the major causes of bacterial bronchitis**

H. influenzae*, *H. influenzae*, *S. pneumoniae*, *S. pyogenes
(ampicillin-susceptible) (ampicillin-resistant)

Brief Summary Consult the package literature for prescribing information

Indications and Usage Ceclo[®] (cefactor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclo.

Contraindication Ceclo is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings IN PENICILLIN SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclo, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics including macrolides, semisynthetic penicillins, and cephalosporins; therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, manage-

ment should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis caused by *C. difficile*. Other causes of colitis should be ruled out.

Precautions **General Precautions**—If an allergic reaction to Ceclo[®] (cefactor, Lilly) occurs, the drug should be discontinued and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclo may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics in hematologic studies or in transfusion cross-matching procedures; when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclo should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended. As a result of administration of Ceclo, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest[®] tablets but not with Tes-Tape[®] (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy—**Pregnancy Category B**—Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum

human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclo[®] (cefactor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers—Small amounts of Ceclo have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclo is administered to a nursing woman.

Usage in Children—Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclo are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthritis, and frequently fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclo. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have

occurred in patients with a history of penicillin allergy. Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[0617B2R]

Note: Ceclo[®] (cefactor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

© 1984, ELI LILLY AND COMPANY

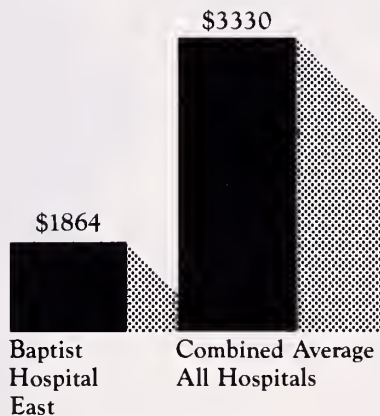
Additional information available to the profession on request from
Eli Lilly and Company
Indianapolis, Indiana 46285
Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630



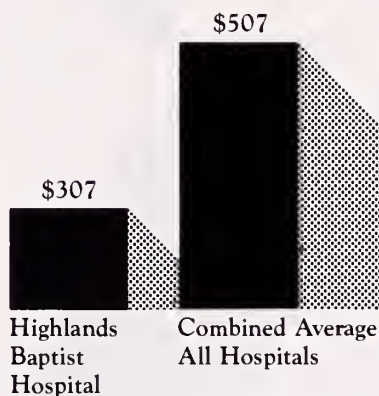
40441

Look at the spot we're in.

Average Cost per Case
in Louisville Hospitals*



Average Cost per Day
in Louisville Hospitals*



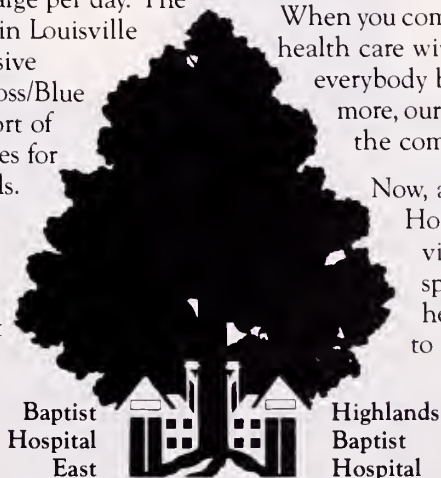
In the latest Blue Cross/Blue Shield rankings, Baptist Hospital East had the lowest average cost per case of all Louisville hospitals. What's more, Highlands Baptist Hospital had the lowest average charge per day. The Baptist Hospitals in Louisville made that impressive record in Blue Cross/Blue Shield's 1983 report of comparison charges for Louisville hospitals.

With their broad range of resources and services, Highlands Baptist

Hospital and Baptist Hospital East together have built a reputation for the kind of high quality, family-centered care you've come to expect.

When you combine high quality health care with lower costs, everybody benefits. What's more, our record proves that the combination works.

Now, aren't the Baptist Hospitals in Louisville in the kind of spot you'd like your health care facilities to be?



BAPTIST • HOSPITALS • INC.

A growing tradition

*Based on Blue Cross/Blue Shield Louisville Hospital Charge Comparison 3/27/84



**as one physician
to another. . .**



**"Who could handle your medical
professional insurance better
than the one company founded
and owned for and by
Kentucky physicians?"**



Kentucky Medical Insurance Company

Sponsored by the Kentucky Medical Association

To Have A KMIC Representative Personally Contact You, Call or Write:

Marketing Department, Kentucky Medical Insurance Company • P.O. Box 35880 Louisville, Ky. 40232

TOLL FREE 1-800-292-1858 • Louisville Area 459-3400

EDITORIAL

Hospitals and Doctors

Hospitals have always tried to attract doctors. This is only natural since a hospital needs patients to function and the only source of patients is through doctors. Traditionally hospitals have competed for patients by trying to furnish better patient care. This has included efforts to supply better physical plants, nursing care, laboratory and x-ray services, etc.

Thirty years ago, in Louisville, the demand for hospital beds exceeded the number of beds available. All the hospitals ran a very high census most of the time and there was no high intensity competition between the hospitals. Times have changed. Today, the number of hospital beds exceeds the demand therefore. Competition between hospitals is intense. The competitive techniques used by hospitals have gradually changed and have been stimulated to some extent by the marketing policies of the new "for profit" hospitals.

The new techniques have included such things as free coffee and food (sometimes very elaborate) in the doctors lounges, office space in building adjacent to the hospital for relatively low rent, fancy cocktail and dinner parties to "honor" the medical staff, etc. Whereas a few doctors may have felt some of these activities by the hospitals were in poor taste, most doctors have accepted these considerations by the hospitals happily.

At no time were the doctors made to feel that they were in any way obligated to the hospitals by accepting these favors.

Recently a new technique has been used by some hospitals wherein a hospital makes some sort of arrangement with a doctor by which the doctor experiences considerable financial gain. In return, the doctor agrees to refer his patients (all or part) to that hospital. The hospital may be far removed geographically from the doctor's area of practice. The doctor may not have been using that hospital at all prior to this agreement.

In my opinion, this is an ominous new development which potentially could be very damaging to the future of medical practice in Kentucky. It just doesn't seem quite right. It doesn't seem quite right for the doctor and it doesn't seem quite right for the hospital. It's almost reminiscent of the "fee splitting" evil of yesteryear when surgeons made financial arrangements with general practitioners in order to insure referrals. Kentucky State Law (311.595, (18)) now forbids this practice. If the hospitals continue to use this technique to attract doctors and if the doctors acquiesce to the hospitals, we're all going to be sorry in the long run.

McHenry S. Brewer, M.D.

We've been defending doctors since these were the state of the art.



Turn of the century trephine for cranial surgery and tonsillotome for removing tonsils.

These instruments were the best available at the turn of the century. So was our professional liability coverage for doctors. In fact, we pioneered the concept of professional protection in 1899 and have been providing this important service exclusively to doctors ever since.

You can be sure we'll always offer the most complete professional liability coverage you can carry. Plus the personal attention and claims prevention assistance you deserve.

For more information about Medical Protective coverage, contact your Medical Protective Company general agent.

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Charles E. Foree, Suite 103B, 152 East Reynolds, Lexington, Kentucky 40502, 606/272-9124
Donald G. Greeno, Suite 104, Shelbyville Office Mall, Louisville, Kentucky 40207, 502/895-5501

Auxiliary

ON BEHALF OF:

THE AMERICAN MEDICAL ASSOCIATION EDUCATION AND RESEARCH FOUNDATION

SEASONS



GREENINGS

Sue Ann & Gary Barker
Jody & Peter Bosomworth
Eulene & Harold Bushey
Evelyn & Joe Caldwell
Micki & William Clouse
Barbara & Warren Cox
Phyllis & John Cronin
Jo Ann & Arthur Daus
Aroona & Uday Dave
Barbara & Jim Davis
Lee & Russell Davis
Sylvia & Edwin Davis
Elizabeth Eubank
Mary & Carl Evans
Carol & Larry Franks
Cheryl & John Houston

Esther & Bill Jansing
Martha & Frank Jenkins
Martha & Jim King
Helen Kinsman
Mary Lee & Edgar McGee
Joyce & John Noonan
Pam & Roger Potter
Sylvia & Michael Pulliam
Judy & Rogers Queen
Dorothy & Everett Rush
Ellen & Allen Sklar
Cheryl & Samuel Smith
Jane & Barry Smith
Adelyn & William Spalding
Mary & Chuck Veurink
Phyllis & Bill Yates

Deceased Kentucky Physicians 1984

Samuel M. Adams, London

Mehmet Arik, Louisville

Winfrey P. Blackburn, M.D., Frankfort

Earl Blair, Brandenburg

Lawrence O. Brock, Elkton

Daniel G. Costigan, Louisville

Phillip R. Craddock, Lexington

Paul L. Dent, Louisville

Richard E. Doughy, Louisville

Maurice P. Fliegelman, Louisville

Hart Hagen, Louisville

Mark H. Healy, Louisville

Dorothy E. Holtgrave, Louisville

Wilbur R. Houston, Erlanger

Donald G. Hughes, Murray

Bush A. Hunter, Lexington

Stuart M. Hunter, Louisville

Arthur M. Jester, Danville

Charles N. Kavanaugh, Jr, Lexington

Frederick L. Kiechle, Owensboro

Clint M. Lacy, Owensboro

Robert B. Lynn, Paducah

Jacob M. Mayer, Mayfield

Robert E. Norsworthy, Hartford

Carl J. Nutini, Crestview Hills

Olson Parrott, Versailles

Stanley M. Price, Louisville

Fred B. Roache, Owensboro

Charles B. Stacy, Pineville

Rudolph F. Vogt, Louisville

Harry E. Voyles, Louisville

Herbert Wald, Louisville

James P. Welch, Louisville

Walter L. Wilson, Louisville

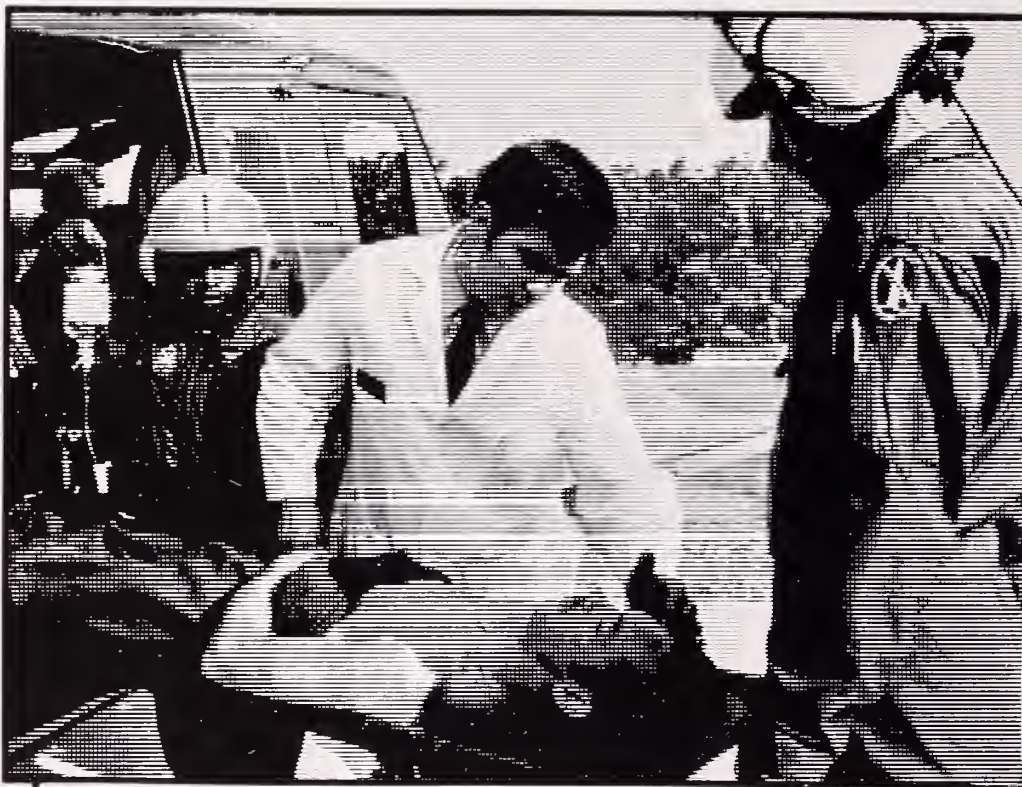
List of names of deceased physicians available to the Journal as of October 1, 1984.

On Death

*What is it to cease breathing, but to free the breath
from its restless tides, that it may rise and expand
and seek God unencumbered?*

**Kahlil Gibran
(1883-1931)**

PHYSICIANS, A WEEKEND WITH THE RESERVE ISN'T JUST ANOTHER DAY AT THE OFFICE.



It's not just different in the Army Reserve, there are opportunities to explore other phases of medicine, to add knowledge, and to develop important administrative skills. There are enough different needs to fill right in your local Army Reserve unit to make a weekend a month exciting and rewarding.

Explore the possibilities. Call our officer counselor:

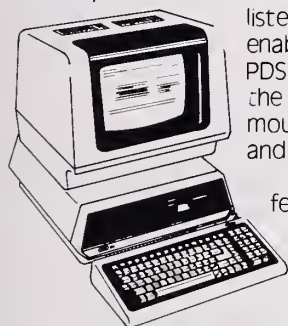
ARMY RESERVE. BE ALL YOU CAN BE.

WE'RE LISTENING



Combus is concerned about efficient office management.

PDS, the best medical office management system available today! How can we make such a statement? That's simple! We've listened to what you had to say. Doing so has enabled The Combus Group to develop the PDS System, the one system that has bridged the gap between the physician and his mounds of daily paper work. We're Listening, and there isn't a better way to learn.



Take a look at just a few of the automated features found on our PDS software and we're sure you'll agree, PDS is the best office management system on the market.

- Medicaid/Medicare Forms
- Accounts Receivables
- Accounts Receivable Aging
- Third Party Billings
- Statements
- Multi-office, Multi-physician
- Patient Charting Capability
- Uses standard CPT & ICD Codes
- History Taking System
- Appointment Scheduling
- Complete practice analysis

Combus provides complete **on-going** support; after the sale we **continue** to Listen!

The PDS System saves time, saves space, increases office productivity and is simple to operate. We can make your practice more efficient, productive, and profitable. Call The Combus Group today and Listen.

PDS

PHYSICIAN DATA SYSTEMS

A Division of the **COMBUS GROUP** Incorporated

821 Corporate Drive ■ Suite 200 ■ Lexington, Kentucky 40503 ■ 606/223-5754

ESPECIALLY FOR
KENTUCKY PHYSICIANS



HOMEOWNERS & AUTO INSURANCE PHYSICIAN'S OFFICE PROTECTION

Pico, the Ohio physician-owned insurance organization that assisted in the formation of Kentucky Medical Insurance Company, is offering homeowners, auto and physician's office protection coverages to Kentucky physicians.

This means that Kentucky physicians can obtain coverage for their medical practice, homes, cars and other possessions, at very attractive rates, from

companies that really have their best interests in mind.

Pico's insurance services in Kentucky are endorsed by the

Kentucky Medical Association and are offered through KMA Insurance Agency, Inc., in cooperation with the Marketing Department of the Kentucky Medical Insurance Company. Call or write for more information.

KMA INSURANCE AGENCY, INC.

3532 Ephraim McDowell Dr.
Louisville, Kentucky 40205
Telephone collect:
(502) 459-3400



Motrin reduces inflammation, pain ...and price

New low price...major savings

The dramatic reduction in the price of *Motrin* Tablets means substantial savings from now on for your patients and for patients all across the country for whom *Motrin* Tablets are prescribed.

Motrin is priced lower than Clinoril, Feldene, or Naprosyn.

The price of *Motrin* Tablets to pharmacies has been reduced as much as 35%. Patients taking the average dosage should now pay less for therapy with *Motrin* Tablets than for almost any other nonsteroidal anti-inflammatory drug you prescribe...less, for example, than for Clinoril, Feldene, or Naprosyn. And, of course, all strengths of *Motrin* Tablets continue to be available by prescription only.

Please turn the page for a brief summary of prescribing information.

Motrin[®] 400 & 600 mg TABLETS
ibuprofen

Good medicine...good value

Motrin® Tablets (ibuprofen)

Contraindications: Anaphylactoid reactions have occurred in individuals hypersensitive to Motrin Tablets or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin, iodides, or other nonsteroidal anti-inflammatory agents.

Warnings: Peptic ulceration and GI bleeding, sometimes severe, have been reported. Ulceration, perforation and bleeding may end fatally. An association has not been established. Use Motrin Tablets under close supervision in patients with a history of upper gastrointestinal tract disease, after consulting ADVERSE REACTIONS. In patients with active peptic ulcer and active rheumatoid arthritis, try nonulcerogenic drugs, such as gold. If Motrin Tablets are used, observe the patient closely for signs of ulcer perforation or GI bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity with papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with Motrin Tablets.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin Tablets and the patient should have an ophthalmologic examination, including central visual fields and color vision testing.

Fluid retention and edema have been associated with Motrin Tablets; use with caution in patients with a history of cardiac decompensation or hypertension. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of Motrin Tablets safety in patients with chronic renal failure have not been done.

Motrin Tablets can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and on anticoagulant therapy.

Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, skin rash, weight gain, or edema.

Patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when Motrin Tablets are added.

The antipyretic, anti-inflammatory activity of Motrin Tablets may mask inflammation and fever.

As with other nonsteroidal anti-inflammatory drugs, borderline elevations of liver tests may occur in up to 15% of patients. These abnormalities may progress, may remain essentially unchanged, or may be transient with continued therapy. Meaningful elevations of SGPT or SGOT (AST) occurred in controlled clinical trials in less than 1% of patients. Severe hepatic reactions, including jaundice and cases of fatal hepatitis, have been reported with ibuprofen as with other nonsteroidal anti-inflammatory drugs. If liver disease develops or if systemic manifestations occur (e.g. eosinophilia, rash, etc.), Motrin should be discontinued.

Drug interactions: Aspirin: used concomitantly may decrease Motrin blood levels.

Coumarin: bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal of which one or more occurred in 4% to 16% of the patients.

Incidence Greater than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness*, headache, nervousness, **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence less than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting; anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with pre-existing significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence less than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmias (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with Motrin. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under "Probable Causal Relationship (PCR)" if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under "Causal Relationship Unknown" if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis. Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Do not exceed 2400 mg per day. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary.

Caution: Federal law prohibits dispensing without prescription.

MEB B 7 S



U.S. Department of Transportation

**DRINKING & DRIVING
CAN KILL A FRIENDSHIP.**

**Ad
Council**

A Public Service of This Publication
© 1984 The Advertising Council, Inc.

Motrin is a registered trademark of The Upjohn Manufacturing Company

Upjohn The Upjohn Company
Kalamazoo, Michigan 49001

"The Doctors' Bank"

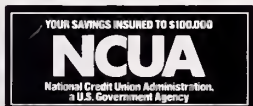
KMA Physicians Financial Services — a Federal Credit Union — is less than two years old. But we're already being called "The Doctors' Bank."

Why? Because only KMA members, their families, their employees and P.S.C.s are eligible to enjoy the many benefits offered by this full-service financial institution. **No one else is eligible!**

As a KMA member, you can take advantage of the high return on your investment dollars, low interest loans and many free services offered by "The Doctors' Bank." Find out how you can benefit from membership in KMA-PFS. Call our office nearest you, or mail in this coupon today. (Be sure to indicate the areas you want to know more about.)



FEDERAL CREDIT UNION



- ☐ Investments (Long and short term savings accounts, IRAs, Keoghs)
- ☐ Interest-drawing checking accounts with overdraft protection
- ☐ VISA and MasterCard — No Fee
- ☐ Low interest loans — including substantial personal line of credit
- ☐ Payroll deduction programs and direct deposit plans
- ☐ All of the above and more!

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

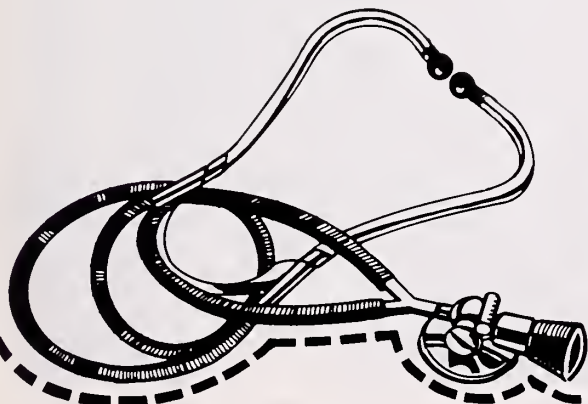
KMA Physicians Financial Services

Toll Free: 1-800-292-1999

Main Office: KMA Building, 3532 Ephraim McDowell Drive
Louisville, KY 40205 (502) 459-9099

Medical Center Office: Medical Towers South, Suite 166
Louisville, KY 40202 (502) 581-1335

Bluegrass Office: 330 Waller Avenue
Lexington, KY 40504 (606) 278-2263



ASSOCIATION

Highlights of the 1984 KMA Annual Meeting

OFFICERS

Wally O. Montgomery, M.D., a general surgeon from Paducah, was elected KMA President-Elect during the 134th Annual Meeting of the House of Delegates. Doctor Montgomery is now serving as AMA Alternate Delegate and is a former two-term Trustee and KMA Vice President. Doctor Montgomery is a Fellow of the American College of Surgeons.

Richard F. Hench, M.D., a Lexington internist, was elected Vice President. Doctor Hench has served two terms as Chairman of the Board and has been a Trustee since 1979.

S. Randolph Scheen, M.D., a Louisville dermatologist, was reelected KMA Secretary-Treasurer. Doctor

Scheen also serves the Association as a member of the Budget Committee and Judicial Council.

Nelson B. Rue, M.D., Bowling Green, was named Chairman of the Board of Trustees. A surgeon, Doctor Rue has served as Trustee from the Sixth District since 1981.

Henry R. "Hank" Bell, M.D., a family practitioner from Elkton, was named Vice Chairman of the Board for 1984-85. Doctor Bell has served as Third District Trustee since 1980.

In other elections, the KMA House of Delegates elected William B. Monnig, M.D., Erlanger, Eighth District Trustee and Emanuel H. Rader, M.D., Pineville, 15th District Trustee. Reelected were Bob M. DeWeese, M.D., Louisville, Fifth District Trustee; Nelson B. Rue,



Left to right: Richard F. Hench, M.D., KMA Vice President; Wally O. Montgomery, M.D., KMA President Elect; Charles C. Smith, Jr., M.D., KMA President, and S. Randolph Scheen, M.D., KMA Secretary-Treasurer.

ASSOCIATION

M.D., Sixth District Trustee and Donald E. Cloys, M.D., Richmond, 11th District Trustee.

Alternate Trustees elected were Donald J. Swikert, M.D., Florence, Eighth District; William H. Mitchell, M.D., Richmond, Eleventh District and Rufino F. Crisostomo, M.D., Barbourville, Fifteenth District. Alternate Trustees reelected were E. Dean Canan, M.D., Louisville, Fifth District, and J. Michael Pulliam, M.D., Franklin, Sixth District.

Harold D. Haller, Sr., M.D., Louisville, and Russell L. Travis, M.D., Lexington, were elected AMA Delegates. Alternate AMA Delegates elected were Carl Cooper, Jr., M.D., Bedford, and Kenneth P. Crawford, M.D., Louisville. The two-year terms will begin January 1, 1985.

President's Luncheon

During the President's Luncheon, Thomas L. Heavern, M.D., Highland Heights, was honored as recipient of the 1984 KMA Distinguished Service Award. Doctor Heavern, a pediatrician, was honored for his long and distinguished service to organized medicine.

S. Randolph Scheen, M.D., Chairman of the Awards Committee, stated in his introduction that Doctor Heavern "has served as a staunch advocate of the poor, particularly children, and their right to quality medical care."

Doctor Heavern has served as AMA Alternate Delegate, KMA Parliamentarian and is presently Vice Speaker of the KMA House of Delegates.

Milton W. Metz, of Louisville, nationally known radio and television personality, received the KMA Layman Award for his contributions to the community. Metz has worked with various Kentucky physicians on his radio call-in show, giving the public an opportunity to speak with medical specialists. He has received several national awards, including one from the Arthritis Foundation for writing and programing. He has also recorded hundreds of publications for the American Printing House for the Blind.

Robert G. Cox, KMA Executive Vice President, was recognized by KMA President James B. Holloway, Jr., M.D., for his service as 1983-84 President of the American Association of Medical Society Executives. Doctor Holloway presented Cox with a silver mint julep cup.

Guest speaker during the President's Luncheon was Joseph F. Boyle, M.D., AMA President. Doctor Boyle stressed the feelings of outrage felt by physicians over the actions by Congress on Medicare, which he stated "threaten the fundamental relationship between the



Wally O. Montgomery, M.D. (left), escorted by Fred C. Rainey, M.D., is applauded by the members of the House after being elected KMA President-Elect.

physician and the patient." The AMA has filed a lawsuit charging that the recently adopted Deficit Reduction Act of 1984 is unconstitutional.

House of Delegates

During the first meeting of the House of Delegates on September 17, Mary Veurink, AKMA Past President, presented AMA-ERF checks to the two medical schools on behalf of the Auxiliary. Auxiliaries across the country raise funds annually for the AMA-ERF which are in turn proportionally returned to medical schools for educational purposes. A check for \$8,599 was pre-



Charles C. Smith, Jr., M.D., gives his presentation after being sworn in as KMA President.



KEMPAC Chairman James S. Brashear, M.D., presents AM-PAC Chairman Fred C. Rainey, M.D., (right) with a gift for his service. Candidates for the State Senate, County Judge Mitch McConnell (R) (far left), and Senator Walter D. Hudleston (D), were guest speakers during the KEMPAC program.

sented to Tony Goetz, Assistant to the Dean of the University of Kentucky Medical Center. Alfred L. Thompson, M.D., Associate Dean for Clinical Affairs at the University of Louisville School of Medicine accepted a check for \$19,315.

Gerald D. Swim, Director of CME at the University of Louisville School of Medicine and Director of the Louisville area CME Consortium was presented the KMA Educational Achievement Award.

Swim has played a continuing role at U of L in guiding and directing CME activities since 1974. He has also been instrumental in developing the Louisville area CME Consortium, an accredited CME provider which includes U of L, several Louisville hospitals and the Jefferson County Medical Society.



Milton W. Metz (left), recipient of the KMA Layman Award, thanks Doctor Scheen, Chairman of the Awards Committee.



Joseph F. Boyle, M.D., AMA President, (left) talked with Harold C. Haller, M.D., AMA Delegate, after the House of Delegates meeting.

Reports of the KMA Committees and Resolutions were officially introduced during the first House of Delegates meeting. During the second meeting the House of Delegates considered 30 Resolutions and more than 40 Committee and Officers' Reports. The House unanimously adopted Resolution S as submitted by the Jefferson County Medical Society which voiced support for AMA in its legal challenge of the constitutionality of the new Medicare Amendments.

Other House action included:

- Implementation of a Health Care Access Hotline for indigent patients
- Formation of a Resident Business Section
- Formation of a Hospital Medical Staff Section
- Establishment of a voluntary benevolent fund for needy members
- Reaffirmation of position on Pre-Admission Review
- Support of study on Professional Liability Reform in Kentucky

Five physicians were elected by the House of Delegates to serve on the 1985 Nominating Committee. Members elected were: G. Randolph Schrodt, M.D., Louisville, Chairman; James H. Brewer, M.D., Shepherdsville; Salem W. George, M.D., Lebanon; Angela Jarvis, M.D., Owensboro, and Carmel Wallace, Jr., M.D., Corbin.

Attendance

1,696 persons registered for the Annual Meeting. General Scientific and Specialty Group sessions were well attended as were both meetings of the House of Delegates. The 1985 KMA Annual Meeting is scheduled for September 16-19, at the Galt House in Louisville.

Journal of the Kentucky Medical Association

ASSOCIATION



Thomas L. Heavern, M.D. (right), Vice Speaker of the KMA House of Delegates, received the KMA Distinguished Service Award for 1984.



Gerald D. Swim, Director of CME at U of L School of Medicine, was presented the KMA Educational Achievement Award.



Mary Veurink, AKMA Past President, presented AMA-ERF checks to Tony Goetz, Assistant to the Dean of the U of K Medical Center (standing left), and Alfred L. Thompson, M.D., Associate Dean for Clinical Affairs at U of L.



Robert G. Cox, KMA Executive Vice President, (left) was recognized by KMA President Holloway for his service as 1983-84 President of the American Association of Medical Society Executives.



Physicians had the opportunity to speak with representatives from more than 100 companies that exhibited at this year's Annual Meeting.



ASSOCIATION

Was Your Delegate Present? ROLL CALL 1984 House of Delegates KMA Annual Meeting

OFFICERS

		First Session	Second Session
President	James B. Holloway, Jr.	Present	Present
President-Elect	Charles C. Smith, Jr.	Present	Present
Vice-President	Wally O. Montgomery	Present	Present
Secretary-Treasurer	S. Randolph Scheen	Present	Present
Speaker	Peter C. Campbell	Present	Present
Vice Speaker	Thomas Heavern	Present	Present
AMA Delegate	Fred C. Rainey	Present	Present
AMA Delegate	Harold D. Haller, Sr.	.....	Present
AMA Delegate	Donald C. Barton	Present	Present
AMA Delegate	Dwight L. Blackburn	Present	Present
AMA Alternate Delegate	Kenneth P. Crawford	Present	Present
AMA Alternate Delegate	Wally O. Montgomery	Present	Present
AMA Alternate Delegate	Harold L. Bushey	Present	Present
AMA Alternate Delegate	Russell L. Travis	Present	Present

TRUSTEES

District			
First	John D. Noonan	.....	.....
Second	Albert H. Joslin	.....	Present
Third	Henry R. Bell	Present	Present
Fourth	Thomas R. Taylor	.....	.....
Fifth	Bob M. DeWeese	Present	Present
Sixth	Nelson B. Rue	Present	Present
Seventh	William P. McElwain	Present	Present
Eighth	Robert E. Smith	Present	Present
Ninth	R. Kendall Brown	Present	Present
Tenth	Richard F. Hench	Present	Present
Eleventh	Don E. Cloys	.....	Present
Twelfth	Danny M. Clark	Present	Present
Thirteenth	Garner E. Robinson	Present	Present
Fourteenth	Ronald D. Hall	.....	.....
Fifteenth	Donald C. Barton	Present	Present

ALTERNATE TRUSTEES

District			
First	Fred D. Austin, III	Present	Present
Second	John W. McClellan	Present	Present
Third	N. H. Talley	Present	Present
Fourth	Wreno M. Hall	Present	.....
Fifth	E. Dean Canan	Present	Present
Sixth	J. Michael Pulliam	Present	Present
Seventh	Cecil D. Martin	Present	Present
Eighth	William R. Yates	Present	Present
Ninth	Robert L. McKenney	Present	Present
Tenth	Christopher A. Boarman	.....	.....
Eleventh	Clifford F. Kerby	.....	.....
Twelfth	David C. Liebschutz	Present	Present
Thirteenth	Jerald M. Ford	Present	Present
Fourteenth	James R. Pigg	Present	Present
Fifteenth	Emanuel H. Rader	Present	Present

PAST-PRESIDENTS

Past President	Dwight L. Blackburn	Present	Present
Past President	Ballard W. Cassidy	.....	.....
Past President	Frank R. Pitzer	Present	Present
Past President	Robert S. Howell	.....	.....
Past President	Carl Cooper, Jr.	Present	.....

DELEGATES FIRST DISTRICT

		First Session	Second Session
BALLARD	Glenn D. Baird	.....	.....
CALLOWAY	Charles D. Clark	Present	Present
	Robert Gary Marquardt	Present	Present
CARLISLE			
FULTON	Robert T. Peterson, Jr.	.....	.....
GRAVES	C. Douglas LeNeave	.....	.....
HICKMAN			
LIVINGSTON	Thomas R. Brandstetter	.....	.....
MCCRACKEN	C. Dale Brown	Present	Present
	James Gwinn, Jr.	Present	Present
	William Jackson	Present	.....
	Gary McMillan	Present	Present
	Ronald Kelley	Present	Present
	Richard D. Smith	Present	Present
MARSHALL	W. H. Ford, M.D.	.....	.....

SECOND DISTRICT

DAVIESS	James E. Anderson	Present	.....
	Angela Jarvis	Present	Present
	Joseph M. Kavolus	Present	Present
	Tom Maddox	Present	Present
	Leslie M. Riherd	.....	Present
	Charles O. Wilson, Jr.	.....	Present

HANCOCK			
HENDERSON	Kenneth M. Eblen	.....	.....
	John McClellan	Present	Present

MCLEAN			
OHIO	Hugh Wilhite, M.D.	.....	.....
UNION			
WEBSTER			

THIRD DISTRICT

CALDWELL	Ralph Cash, Jr.	.....	.....
CHRISTIAN	Charles Barlowe	.....	.....
	Gwinn Cost	.....	Present
	Frank Pitzer	Present	Present
	Nick Terhune	Present	Present

CRITTENDEN			
HOPKINS	Wallace R. Alexander	Present	Present
	James M. Bowles	Present	Present
	C. R. Dodds	Present	Present
	William H. Klompus	Present	Present
LYON	Delmas Clardy	.....	Present
MUILENBERG	James S. Brashear	Present	.....
	W. L. Miller	.....	Present
TODD	Jessie Woodall	.....	.....
TRIGG	Hira Roy	.....	.....

FOURTH DISTRICT

BRECKINRIDGE			
BULLITT	James R. Candiff	Present	Present
GRAYSON	Victor F. Duvall	.....	.....
GREEN	Kenneth J. DeSimone	.....	.....
HARDIN-LARUE	William M. Carney	Present	.....
	Marion L. Douglass	Present	Present
	William R. Handley	Present	Present
	Keene Hill	Present	Present
HART	Salem George	Present	.....
MARION			
MEADE			
NELSON	Charles B. Spalding	Present	Present
TAYLOR	Henry F. Chambers	.....	Present
WASHINGTON	Brian Wells	.....	Present

ASSOCIATION

JEFFERSON	FIFTH DISTRICT			WARREN	Jerry Martin	Present	Present
	William Stephen Aaron	.....	.....		Paul J. Parks	Present	Present
	Berel Abrams	.....	.....		James O. Willoughby	Present	Present
	Richard Allen	.....	Present		SEVENTH DISTRICT		
	Billy Andrews	.....	Present				
	James G. Baker	.....	.....	ANDERSON			
	Arnold Belker	.....	.....	CARROLL	Cecil D. Martin	Present	Present
	Ben M. Birkhead	.....	.....	FRANKLIN	John Gergen	Present	Present
	Jerry B. Buchanan	.....	Present		George Hroniyak	Present	Present
	W. C. Buschemeyer, Jr.	.....	.....		Willis P. McKee, Jr.	Present	Present
	E. Dean Canan	Present	Present	GALLATIN			
	James Childers	Present	Present	GRANT			
	Eugene H. Connor	.....	.....	HENRY	Robert L. Houston, Jr.	Present	Present
	Samuel L. Cooper	.....	Present	OLDHAM	Harold Funke	Present	Present
	Bob M. DeWeese	Present	Present	OWEN			
	Arthur J. Donovan, Jr.	.....	.....	SHELBY	Ronald Waldrige	Present	Present
	Robert E. Ellis	.....	.....	SPENCER	William K. Skaggs	.....	.....
	Larry D. Florman	.....	Present	TRIMBLE	Roderick H. MacGregor	Present	Present
	Gary Fox	.....	.....		
	Daniel P. Garcia	Present	Present		EIGHTH DISTRICT		
	Lawrence Goldberg	.....	.....	BOONE	Donald J. Swikert	Present	Present
	Robert R. Goodin	.....	Present		James A. Zalla	.....	Present
	Cecil L. Grumbles	Present	Present	CAMPBELL-KENTON	Gordon W. Air	Present	Present
	John J. Guarnaschelli	.....	.....		Charles Allnutt	Present	Present
	Christopher Howerton	.....	Present		Todd M. Cook	Present	Present
	Walter I. Hume, Jr.	.....	Present		Thomas Heavern, Jr.	Present	Present
	Jerome P. Lacy	.....	Present		Howard A. Herringer, Jr.	.....	Present
	John Lloyd	.....	.....		Tom Mayer	.....	.....
	Theodore Lynch	.....	Present		William B. Monnig	Present	Present
	Joseph C. Marshall, Jr.	.....	.....		Mark F. Pelstring	Present	.....
	Edward N. Maxwell	.....	Present		Fred A. Stine	Present	Present
	Russell T. May	.....	Present		Vincent Ziegler	Present	Present
	Martha T. McCoy	.....	.....		NINTH DISTRICT		
	Gordon McMurray	Present	Present	BATH			
	Roy J. Meckler	.....	.....	BOURBON	William H. Cox	Present	Present
	James P. Moss	.....	.....	BRACKEN	Dewey E. Cummins	.....	.....
	Robert L. Nold, Sr.	.....	Present	FLEMING	Robert W. Fidler	Present	Present
	Lynn L. Ogden, II	Present	Present	HARRISON	Don R. Stephens	.....	.....
	Hobert L. Pence	.....	.....	MASON	Claude E. Cummins, Jr.	.....	Present
	C. Kenneth Peters	.....	.....	NICHOLAS	Wendell R. Kingsolver	Present	Present
	Henry W. Post	.....	Present	PENDLETON	Robert L. McKenney	Present	Present
	C. Ray Potts	.....	.....	ROBERTSON			
	Barton H. Reutlinger	Present	.....	SCOTT	Larry Jones	Present	Present
	G. Randolph Schrod	Present	Present		TENTH DISTRICT		
	Jerry W. Seligman	.....	.....	FAYETTE	John R. Allen	Present	Present
	Robert M. Senese	.....	.....		Robert P. Belin	.....	Present
	Judah L. Skolnick	.....	.....		William E. Blackburn	Present	Present
	Gerald F. Sturgeon	.....	.....		Peter P. Bosomworth	Present	Present
	Walter L. Thompson	.....	.....		John D. Cronin	Present	Present
	Peter L. Thurman	.....	.....		Michael E. Daugherty	Present	Present
	Will W. Ward	.....	.....		Harold T. Faulconer	Present	Present
	Thomas R. Watson	.....	Present		Bill Harris	.....	Present
	Lolita Weakley	Present	Present		Ardis D. Hoven	Present	Present
	Sam Weakley	Present	Present		Thomas M. Jarboe	Present	Present
	David H. Winslow, Jr.	.....	.....		Van R. Jenkins	Present	Present
	C. Milton Young, III	.....	Present		Dennis B. Kelly	Present	.....
	Christopher Howerton (IT)	.....	Present		Priscilla Lynd	Present	Present
	Kristie Jones (IT)	.....	Present		Sally Mattingly	Present	Present
					Edgar McGee	.....	Present
	SIXTH DISTRICT				William R. Meeker, Jr.	Present	Present
ADAIR	Millard C. Loy	Present	Present		Charles H. Nicholson	Present	Present
ALLEN	Earl P. Oliver	Present	Present		Edwin J. Nighbert	Present	Present
BARREN	Lewis Dickinson	Present	Present		Preston P. Nunneley	Present	Present
	Daryl P. Harvey	Present	Present		John D. Perrine	Present	Present
BUTLER	Richard T. Wan	.....	.....		Thomas K. Slabaugh	Present	Present
CUMBERLAND	Samuel L. Rice	.....	.....		John E. Trevey	Present	Present
EDMONSON	Omikar N. Bhatt	.....	.....		Gary Wallace	Present	Present
LOGAN	Roy McEndre	.....	.....	JESSAMINE	Phyllis Corbitt	.....	.....
METCALFE	L. P. Emberton	.....	.....		
MONROE	James E. Carter	.....	.....		
SIMPSON							

WOODFORD Dale C. Goodlin Present

ELEVENTH DISTRICT

CLARK
ESTILL
JACKSON Philip Curd.
LEE Arnold Taulbee
MADISON John M. Johnstone Present Present
William H. Mitchell Present Present
MENIFEE
MONTGOMERY William H. McKenna Present Present
OWSLEY Mildred B. Gabbard Present Present
POWELL
WOLFE Paul F. Maddox Present

TWELFTH DISTRICT

BOYLE David C. Liebschutz Present Present
Scott Scutchfield Present Present
CASEY Lewis E. Wesley Present Present
CLINTON Floyd B. Hay
GARRARD Paul J. Sides Present
LINCOLN Charles E. Crase Present
MCCREARY
MERCER Bacon R. Moore Present Present
PULASKI Veryl Frye, Jr. Present Present
William Watkins Present Present
ROCKCASTLE
RUSSELL James E. Monin Present
WAYNE John W. Simmons Present Present

THIRTEENTH DISTRICT

BOYD Walter L. Cawood Present
Paul E. Lett Present
H. B. McWhorter Present Present
Lamar C. Meigs
CARTER Charles T. Watson Present Present
CASEY William H. Matthew Present
ELLIOTT Lewis E. Wesley Present Present
GREENUP Brown L. Adkins
LAWRENCE Manuel S. Garcia Present Present
LEWIS George P. Carter Present Present
MORGAN
ROWAN Don Blair Present

FOURTEENTH DISTRICT

BREATHITT H. Price Sewell, III
FLOYD N. Roger Jurich Present Present
Larry M. Leslie, M.D.
JOHNSON Jerry D. Fraim Present
KNOTT Gradie Stumbo Present
LETCHER Christopher T. Hass
Carl Pigman Present
MAGOFFIN
MARTIN Gregory D. Wells
PERRY
PIKE James R. Pigg Present Present
Charles S. Nichols Present Present
Mary L. Wiss Present Present

FIFTEENTH DISTRICT

BELL Robert B. Matheny Present Present
Charles C. Moore, Jr. Present Present
CLAY William E. Becknell, Sr. Present Present
HARLAN Rachel R. Eubank Present Present
James K. Hurlocker Present Present
KNOX Rufino R. Crisostomo Present
Roger Acosta Present
LAUREL William D. Pratt Present Present
LESLIE Peter J. Morris
WHITLEY Roemer D. Pitman
Carmel Wallace, Jr. Present Present

U of L Student Delegate—Brian Zachariah

U of K Student Delegate—Gwen Cambron

The information in the Roll Call was taken from the attendance record cards signed by the delegates prior to the meetings of the House, September 17 and 19.

STATEMENT OF OWNERSHIP MANAGEMENT AND CIRCULATION

(Required by 30 U.S.C. 3685)

1. Title of Publication: THE JOURNAL OF THE KENTUCKY MEDICAL ASSOCIATION.
2. Date of filing: Sept. 28, 1984.
3. Frequency of issue: Monthly.
4. Location of known office of publication: 3532 Ephraim McDowell Drive, Louisville, Jefferson County, Kentucky 40205.
5. Location of the headquarters or general offices of the publishers: 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
6. Names and addresses of publisher, editor, and managing editor: Publisher — Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. Editor — A. Evan Overstreet, M.D., 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. Managing Editor — Donna M. Young, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
7. Owner: Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: Citizens Fidelity Bank and Trust Company, P.O. Box 1140, Louisville, Kentucky 40201.
10. Nonprofit organizations authorized to mail at special rates: The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during the preceding 12 months.
11. Extent and nature of circulation:

	Average no. copies each issue during preceding 12 months	Single issue Published nearest to filing date
A. Total no. copies printed:	4392	4392
B. Paid circulation:		
1. Sales through dealers and carriers, street vendors and counter sales:	0	0
2. Mail subscriptions:	3899	3899
C. Total paid circulation:	3899	3899
D. Free distribution by mail, carrier or other means:		
1. Samples, complimentary, and other free cop- ies:	441	441
E. Total distribution:	4340	4340
F. Office use left-over, unaccounted, spoiled after printing:	52	52
G. Total:	4392	4392

NEWS

Kentucky Physicians Care

In accordance with 1984 KMA House of Delegates' action, the Kentucky Physicians Care/KMA Hotline Referral program will be placed in operation on January 2, 1985. The KMA Hotline Referral System is designed to direct those needy persons ineligible for governmental medical assistance programs who meet federal poverty guidelines but are not eligible for the Medicaid Program. The program is designed to provide physician professional service at no charge and does not include lab, x-ray, or other medical or health services that would not normally be included in a routine office visit. It will be operated for one year. The 1985 House of Delegates will review its progress next September and determine whether KMA will continue its endorsement and involvement past January 1, 1986.

The program is for non-emergency patients. However, if a patient has an emergency and seeks assistance through the referral program, they will be referred to the nearest hospital emergency room.

Individuals seeking care through the program must be certified eligible through one of the county Kentucky Cabinet for Human Resources offices. Once certified the patient may call the toll free referral number to get the name and telephone number of the nearest physician participating in the program. The patient will be told to call that physician's office for an appointment.

In November, KMA physicians participating agreements were mailed to all physicians licensed and practicing in Kentucky. The Kentucky Hospital Association has endorsed the concept of the program, and KMA is working with the Kentucky Pharmacy Association and other allied groups to encourage their participation as well. If there are questions regarding the Kentucky

Physicians Care Program, please feel free to contact KMA Headquarters at (502) 459-9790.

A detailed description of the program is in the Ad Hoc Operating Committee for the KMA Hotline Referral System Report to the 1984 KMA House of Delegates. Resolution A, as adopted by the House of Delegates, authorized KMA participation in the program. Both the report and the Resolution are included in this publication.

Members in the News

G. Douglas Sutherland, President of Blue Cross and Blue Shield of Kentucky, has announced the appointment of Dwight L. Blackburn, M.D., as Medical Consultant in the Medical Services Division. Sutherland also announced the appointment of William R. Newsom as Executive Vice President. Mr. Newsom's primary responsibilities will be for external operations of the Plans. In addition, Jack Rodman was named Director of Provider and Professional Affairs.

Doctor Blackburn joins the Plan after 28 years of general practice in Berea, Kentucky. He received a Bachelor of Arts Degree from Berea College and completed his medical studies at the University of Louisville School of Medicine. Dwight Blackburn, M.D., is a Past President of the Kentucky Medical Association and served two terms as Chairman of the Board of Trustees.

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month two months preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. \$5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

KENTUCKY LICENSED OB-GYN Needed as Locum Tenens. Permanent Position Negotiable. Submit Resume, References and Schedules to: Physicians, Inc., P.O. Box 960, Ironton, Ohio. 45638.

THRIVING PRACTICE NEEDS FAMILY PRACTITIONER, INTERNIST AND GENERAL SURGEON to practice with small group utilizing a creative approach to practice of medicine. Primary care center, ambulatory surgical center, urgent treatment center, birthing room, home health service, excellent diagnostic facility with full radiological coverage — all in one building. New well-equipped hospital. Competitive income. Excellent benefit package. Coverage for days off and vacations. Near major recreational area. An exciting opportunity to practice in a rewarding and unique situation. Write or call Jannice O. Aaron, M.D., 300 Bomar Heights, Columbia, Kentucky 42728. (502) 384-4764.

COUNTRY LIVING AT ITS BEST. Looking forward to retirement? Historic Mercer County, 30 minutes to Lexington. 40 acres level prime soil. New barn with loft. Custom built two story brick country style home (5 years old). 3808 sq. ft. living space with guest house. Two basements. All electric with city water. One mile to boat dock on Herrington Lake no-wake zone. Executive home with all the amenities. Excellent horse farm potential. Reason for selling — health. Call or write for price and 7 pg. brochure with photo. For sale by owners, Dr. and Mrs. Glenn R. Powell, 275 Normans Camp Road, Harrodsburg, Kentucky 40330. (606) 748-9160.

General Leasing
Company of Kentucky

Professional Transportation Management

**We administer your
physician's lease plan.**

We lease all makes —
everywhere.

**GENERAL
LEASING**

121 Bauer Avenue
P.O. Box 7555
Louisville, Kentucky 40207
502/896-0383

Kentucky Medical Association Group Disability Income

We also administrate the Jefferson County and Fayette County Medical Society as well as the Louisville and Kentucky Bar Associations, the Kentucky Dental Association and the CPAs of Kentucky programs.

We are the specialists!

Once again your program has been upgraded. Our continued success has been our ability to keep up with all of the *new features* offered in individual contracts but to offer them at group step-rated prices. The new physicians cannot afford to miss examining this new program.



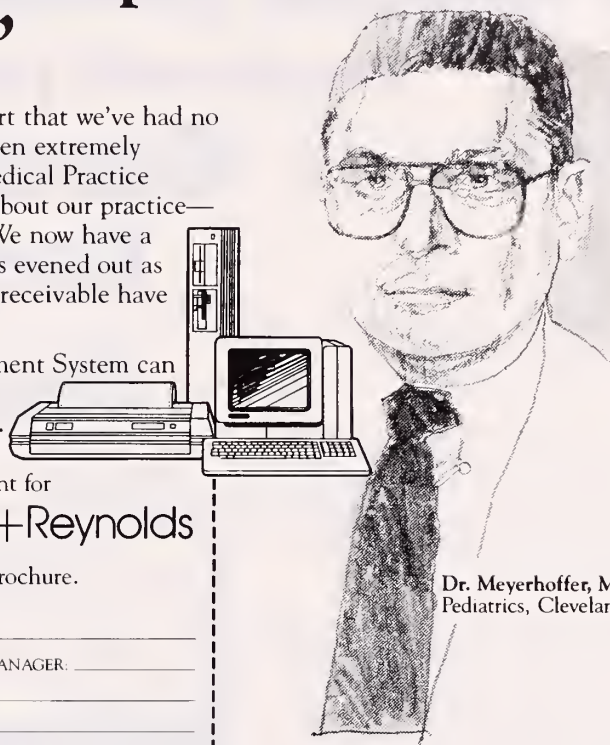
631 Lincoln Federal Bldg.
Fourth Avenue
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.

"We now have a concise profile of practice productivity."

"We have eight terminals in constant use. I'm happy to report that we've had no downtime problems and Reynolds + Reynolds has always been extremely responsive to our needs. Since our Reynolds + Reynolds Medical Practice Management System was installed we've learned vital facts about our practice—number of visits, procedures performed, physician activity. We now have a concise profile of our practice productivity, and cash flow has evened out as a result of the new billing system. I'd estimate that accounts receivable have decreased by 15% or more."

For more information on how the Medical Practice Management System can improve your practice too, complete the coupon below.



Dr. Meyerhoffer, M.D.
Pediatrics, Cleveland, OH.

PROFESSIONAL ACCOUNTING SYSTEMS
9212 REIGATE, LOUISVILLE, KENTUCKY 40222
(502) 426-5333

an authorized agent for
Reynolds+Reynolds

____ Please send your Medical Practice Management System Brochure.
____ Please have an authorized agent contact me.

PHYSICIAN: _____ PRACTICE NAME: _____
NO. OF PHYSICIANS: _____ SPECIALTY: _____ OFFICE MANAGER: _____
ADDRESS _____ CITY _____
STATE _____ ZIP _____ TELEPHONE _____

© 1984 The Reynolds and Reynolds Company. All rights reserved.

We're Hardware. We're Software. We're Everywhere.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Information. Please forward any papers to:

Paul C. Grider, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

When you don't have time to waste...

Listen to

Audio Medical News

For the news you really need.

**Concise.
Easy.
Fast.**

AMN, the twice-a-month news service that helps you keep pace with all the news that's vital to your practice!

Every day you see the tempo of medicine quicken. Watch competition grow. Witness new forms of health care delivery and payment systems emerge. See costs continue to rise. Face new challenges in managing your practice.

Now you can stay informed of all the latest socioeconomic medical issues with the fast and convenient Audio Medical News Service. Simply subscribe to AMN, and two times each month you'll receive a handy 60-minute cassette that recaps the news you really need—in no-nonsense straight talk. Just slip the cassette into a player and listen to unbiased reports and interviews on vital social, economic, and political issues. It's quick and it's easy.



**The state-of-the-art
audio news service...
for the modern medical
professional!**

Check all of these convenient Audio Medical News features:

**AUDIO MEDICAL NEWS
SUBSCRIPTION COUPON**
Audio Medical News
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

For faster service, call
**TOLL-FREE:
1-800/621-8335**

#6889

Co-produced by American Medical Association and Audio Digest Foundation.



New

Expanded coverage.

Two times each month you'll receive high-quality, 60-minute tapes—expanded from 30 minutes to give you a broader range of topics.

New

Conveniently organized to save listening time.

Side 1 includes a variety of late-breaking, short news briefings to give you a quick overview of socioeconomic developments. Side 2 features an in-depth report on a current subject of interest.

New

Expanded emphasis on business and practice management.

AMN provides a wide range of reports to help you run your practice more effectively and efficiently.

Reports the issues that affect YOU—in every specialty.

Probes the important policy issues facing medicine today: health planning, preventive care, cost containment, Medicare and Medicaid, HMOs, DRGs, PPOs, health education, biomedical research, and more.

Scans and condenses over 70 leading publications.

AMN reads and condenses the vital news into a compact, easy-listening format. It may even allow you to reduce the number of publications you buy—and SAVE you money.

Includes interviews with leaders in medicine.

Listen to live interviews with Congressional leaders who affect health-related legislation, and academicians who research and analyze social and economic medical issues.

Go-everywhere listening convenience.

Wherever you go, take these handy cassettes with you—in the car...to the office...to the hospital. Helps you take advantage of every valuable minute of your day.

Please enter my one-year subscription to AUDIO MEDICAL NEWS. I understand I will receive two cassettes a month (24 issues). AMA member price: \$106 per year. Non-member price: \$125 per year. If for any reason I am not satisfied with the service, I may cancel and receive a prompt refund on all unmailed issues.

Check one

- ☐ Please bill me at address indicated.
☐ Enclosed is my check, payable to the American Medical Association.
☐ Please charge my subscription to:
☐ MasterCard ☐ Diners Card
☐ VISA ☐ American Express
☐ Carte Blanche

☐ AMA Member ☐ AMA Nonmember

Credit Card Number _____ Expiration Date _____

Signature _____

Name _____

Specialty _____

Address _____

City _____

State/Zip _____

The Steele Bailey, M.D. Memorial Meeting of the Kentucky Medical Association

**Hyatt Regency/Lexington Convention Center
Lexington, Kentucky, September 17-20, 1984**

***Digest of Proceedings of the Regular Session of the**

House of Delegates

**Peter C. Campbell, Jr., M.D., Louisville
Speaker of the House, Presiding**

First Meeting

Peter C. Campbell, Jr., M.D., Speaker of the KMA House of Delegates, called the first meeting of the 134th session of the KMA House of Delegates to order at 9:00 a.m. on Monday, September 17, 1984, and asked Albert H. Joslin, M.D., Owensboro, to give the Invocation. Following the Invocation, Millard C. Loy, M.D., Columbia, Chairman of the Credentials Committee, reported that a quorum was present. A motion was made, seconded, and carried to approve the Minutes of the 1983 session of the House of Delegates as published in the December 1983 *Journal of the Kentucky Medical Association*.

S. Randolph Scheen, M.D., Louisville, Secretary-Treasurer, reported that the scientific sessions would begin at 8:50 a.m. Tuesday in the Convention Center, and that the President's Luncheon would begin at 11:50 a.m. on Wednesday at which time the new KMA President would be installed. Doctor Scheen reminded the Delegates that the Nominating Committee for general officers would meet at the close of the first meeting of

the House, and Reference Committees would convene at 2:00 p.m. in the Convention Center.

Doctor Scheen read the following list of member physicians who had died since the 1983 session of the House of Delegates. After the reading, the members of the House stood for a moment of silent tribute. Names of the physicians are as follows:

Samuel M. Adams, London
Mehmet Arik, Louisville
Earl Blair, Brandenburg
Lawrence O. Brock, Elkton
Daniel G. Costigan, Louisville
Phillip R. Craddock, Lexington
Paul L. Dent, Louisville
Richard E. Doughty, Louisville
Maurice T. Fliegelman, Louisville
Mark H. Healy, Louisville
Dorothy E. Holtgrave, Louisville
Wilbur R. Houston, Erlanger
Donald G. Hughes, Murray
Bush A. Hunter, Lexington
Stuart M. Hunter, Louisville
Arthur M. Jester, Danville
Charles N. Kavanaugh, Jr., Lexington
Frederick L. Kiechle, Owensboro

**Editorial Note: A tape recording was made of the two meetings of the House of Delegates, and any member who wishes to examine the transcript of these proceedings may visit the Headquarters Office and listen to the recordings.*

HOUSE OF DELEGATES

Clint M. Lacy, Owensboro
 Robert B. Lynn, Paducah
 Jacob M. Mayer, Mayfield
 Robert E. Norsworthy, Hartford
 Carl J. Nutini, Crestview Hills
 Olson Parrott, Versailles
 Stanley M. Price, Louisville
 Fred B. Roache, Owensboro
 Charles B. Stacy, Pineville
 Rudolph F. Vogt, Louisville
 Harry E. Voyles, Louisville
 Herbert Wald, Louisville
 James P. Welch, Louisville
 Walter L. Wilson, Louisville

It was noted from the floor that the names of two physicians had been omitted from the list. They are Hart Hagan, M.D., Louisville, and Winfrey P. Blackburn, M.D., Frankfort.

The speaker announced that the Rules Committee would not have an oral report to present, but directed the Delegates' attention to a booklet outlining Rules the House follows in its deliberations which the Rules Committee had prepared.

Mary Veurink, Immediate Past President of the Auxiliary to KMA, presented AMA-ERF checks comprised of donated funds the Auxiliary had raised to benefit Kentucky's medical schools. Tony Goetz, Associate Dean of the University of Kentucky College of Medicine, accepted a check for \$8,599.78, and Alfred L. Thompson, Jr., M.D., Associate Dean for Clinical Affairs, accepted a check for \$19,315 on behalf of the University of Louisville School of Medicine.

James B. Holloway, Jr., M.D., KMA President, presented the 1984 Educational Achievement Award to Gerald D. Swim, Director of Continuing Medical Education at the University of Louisville School of Medicine, and Director of the Louisville Area CME Consortium.

Vice Speaker Thomas L. Heavern, M.D., introduced the officers who in turn presented their Reports. He then read the list of remaining Reports indicating to which Reference Committee each was assigned, as noted below:

Report Number	Reference Committee
1 Report of the President	1
James B. Holloway, Jr., Lexington	

2 Report of the President, Auxiliary to KMA	1
Mary Veurink, Richmond	
3 Report of the President-Elect	1
Charles C. Smith, Jr., Louisville	
4 Report of the Speakers, House of Delegates	1
Peter C. Campbell, Jr., Louisville	
5 Report of the Chairman, Board of Trustees	1
Donald C. Barton, Corbin	
6 Report of the Secretary-Treasurer	1
S. Randolph Scheen, Louisville	
7 Report of the Editor	1
A. Evan Overstreet, Louisville	
8 Report of the Delegates to AMA	1
Fred C. Rainey, Elizabethtown	
9 Report of the Executive Vice President	1
Robert G. Cox, Louisville	

REPORTS OF COMMITTEES, COUNCILS, AND BOARDS

10 Advisory Committee to AKMA	1
Dwight L. Blackburn, Berea	
11 KMA Medical Student Section Governing Council	1
Brian Zachariah, Chairman	
12 Kentucky Insurance Company Board of Directors	1
Ballard W. Cassady, Pikeville	
13 KMA Physicians Services, Inc.	1
Donald C. Barton, Corbin	
KMA Insurance Agency, Inc.	1
Dwight L. Blackburn, Berea	
Kentucky Medical Management & Computer Operations, Inc.	1
Richard F. Hench, Lexington	
14 KMA Physicians Financial Services, a Federal Credit Union	1
Charles C. Smith, Jr., Louisville	
15 Scientific Program Committee	2
James A. Baumgarten, Owensboro	
16 Scientific Exhibits Committee	2
Richard A. Kielar, Lexington	
17 Continuing Medical Education Committee	2
James E. Redmon, Jr., Louisville	
18 Council for Continuing Medical Education	2
Nelson B. Rue, Bowling Green	

HOUSE OF DELEGATES

19	Cancer Committee	2	39	Committee on School Health, Physical Education, and Medical Aspects of Sports	5
	P. Raphael Caffrey, Lexington			R. Quin Bailey, Danville	
20	Hospital Committee	2	40	Advisory Committee to CHR	5
	John D. Perrine, Lexington			Donald C. Barton, Corbin	
21	Emergency Medical Care Committee	2	41	Judicial Council	6
	E. Truman Mays, Somerset			J. Campbell Cantrill, Georgetown	
22	Interspecialty Council	2	42	Rural Kentucky Medical Scholarship Fund	6
	Paul J. Parks, Bowling Green			Henry S. Spalding, Bardstown	
23	Maternal Mortality Study Committee	3	43	Physician-Attorney Liaison Committee	6
	John W. Greene, Jr., Lexington			Thomas M. Marshall, Louisville	
24	Committee on National Legislative Activities	3	44	Membership Committee	6
	Fred C. Rainey, Elizabethtown			Harold D. Haller, Sr., Louisville	
25	Committee on State Legislative Activities	3	45	Placement Services Committee	6
	Carl Cooper, Jr., Bedford			Don E. Cloys, Richmond	
26	Committee on Impaired Physicians	3	46	Committee on Constitution and Bylaws	6
	David L. Stewart, Louisville			Robert L. McClendon, Louisville	
27	Committee on Long-Term Care	3	47	McDowell House Board of Managers	6
	Robert E. Smith, Covington			David W. Kinnaird, Louisville	
28	President, Blue Cross and Blue Shield	4			
	G. Douglas Sutherland, Louisville				
29	Committee on Medical Insurance and Prepayment Plans	4			
	Earl P. Oliver, Scottsville				
30	Committee on Claims and Utilization Review	4			
	K. Thomas Reichard, Louisville				
31	Coordinating Commission on Peer Review Activities	4			
	J. Campbell Cantrill, Georgetown				
32	Committee on Health Care Costs	4			
	Walter I. Hume, Jr., Louisville				
33	Committee to Investigate Changing Trends in Medicine	4			
	Charles C. Smith, Jr., Louisville				
34	Committee on Maternal and Child Health	5			
	Van R. Jenkins, Lexington				
35	Committee on Medicare and Other Governmental Medical Programs	5			
	Paul J. Parks, Bowling Green				
36	Committee on Health Planning	5			
	Frederick A. Stine, Highland Heights				
37	Technical Advisory Committee on Physician Services (Title XIX)	5			
	Harold L. Bushey, Barbourville				
38	Committee on Community and Rural Health	5			
	Don R. Stephens, Cynthiana				

Speaker Campbell then thanked Carl L. Wedekind, Jr., KMA Legal Counsel, and Debby L. Traugher, Administrative Assistant, for their help for the past several years.

He then announced a short coffee break hosted by the Kentucky Chapter of the American Association of Medical Assistants.

New Business

New Business was referred to the House by the Speaker and referred to the Reference Committee indicated:

Resolution	Title	Reference Committee	Submitted by
A	Hotline/Referral System	1	Board of Trustees
B	Formation of KMA Resident Business Section	6	Board of Trustees
C	Associate Member Dues	6	Board of Trustees
D	AMA Alternate Delegates as Members of the KMA Board of Trustees	6	Board of Trustees
E	Hospital Medical Staff Section	6	Board of Trustees
F	KMA Benevolent Fund	3	Board of Trustees
G	Assumption of Liability for Government Program Recipients	5	McCracken County Medical Society
H	Minimum Hospital Liability Insurance Coverage	2	McCracken County Medical Society

HOUSE OF DELEGATES

I	KMA-KHA Cooperation	2	McCracken County Medical Society
J	Kentucky Medical Insurance Company	1	Adair County Medical Society
K	KMA County Society Quality Assurance Committees	2	Campbell-Kenton County Medical Society
L	Quality Assurance Plan	2	Campbell-Kenton County Medical Society
M	Cooperation Between Physicians and Hospitals	2	Campbell-Kenton County Medical Society
N	Business Coalition	4	Campbell-Kenton County Medical Society
O	Medical Staff Self-Governance	2	Campbell-Kenton County Medical Society
P	Hospital Census	2	Jefferson County Medical Society
Q	Kentucky Medical Assistance Program	5	Jefferson County Medical Society
R	Contractual Arrangements and Patient Choice	4	Jefferson County Medical Society
S	Deficit Reduction Act of 1984	5	Jefferson County Medical Society
T	Professional Liability Reform	3	Jefferson County Medical Society
U	Deficit Reduction Act	5	McCracken County Medical Society
V	Medicare Amendments to the Deficit Reduction Act of 1984	5	Warren County Medical Society
W	Blue Cross and Blue Shield Preauthorization Program	1	Mercer County Medical Society
X	KMIC Insurance for Family Physicians	1	Garrard County Medical Society
Y	Catastrophic Illness	3	Campbell-Kenton County Medical Society
Z	Medicare Mandatory Assignment	5	Campbell-Kenton County Medical Society
AA	Preadmission Review and Preferred Provider Services	4	Fayette County Medical Society
BB	Members of the KMA Board of Trustees	6	Campbell-Kenton County Medical Society
CC	Medicaid and Indigent Care	1	Campbell-Kenton County Medical Society

Vice Speaker Heavern announced the meeting locations for the Nominating Committee and for Trustee Districts electing Trustees and Alternate Trustees. He reminded the Delegates that the Nominating Committee would report at the close of the first scientific session on Tuesday morning.

The names of the members of the Nominating Committee were announced: Jerry W. Martin, M.D., Bowling Green, Chairman; James S. Brashear, M.D., Central City; C. Dale Brown, M.D., Paducah; E. Dean Canan, M.D., Louisville; and Paul J. Sides, M.D., Lancaster.

Doctor Heavern also noted that the Speakers would meet with the new Delegates for a brief orientation session immediately upon adjournment of the meeting.

Secretary-Treasurer Scheen returned to the podium to read a letter distributed to all AMA members by Joseph F. Boyle, M.D., President of the American Medical Association, regarding the Deficit Reduction Act of 1984. He noted that Nancy Kintzel, Field Service Representative from the AMA, was attending the Annual Meeting.

Speaker Campbell adjourned the meeting at 10:15 a.m.

Second Meeting

Speaker Campbell called the second meeting of the House of Delegates to order at 6:05 p.m. and asked Harold L. Bushey, M.D., Barbourville, to give the Invocation. Doctor Loy reported a quorum was present. Doctor Campbell announced the members of the Tellers Committee: Angela Jarvis, M.D., Owensboro, Chairman; James R. Cundiff, M.D., Shepherdsville; Charles G. Nichols, M.D., Pikeville; Paul J. Sides, M.D., Lancaster; and William T. Watkins, M.D., Somerset.

Doctor Scheen recognized guests from neighboring state medical associations who had attended the Annual Meeting. Included were A. Burton Payne, M.D., President, Ohio State Medical Association; C. Barrie Cook, M.D., President of the Medical Society of Virginia; Carl J. Roncaglione, M.D., President of the West Virginia State Medical Association; and Lawrence E. Allen, M.D., President-Elect of the Indiana State Medical Association.

Doctor Campbell introduced Joseph F. Boyle, M.D., President of the American Medical Association, who was attending the KMA Annual Meeting from Los Angeles, California. Doctor Boyle urged the Delegates to recommit themselves to the time-honored tradition of caring for people and to address themselves to their patients' needs regardless of economics.

The Speaker thanked Doctor Boyle for his remarks and called on Donald C. Barton, M.D., Chairman of the Board of Trustees. Doctor Barton informed the House members that the Board of Trustees had adopted a policy statement on "Medicare Participating Physicians Agreement," and copies were being distributed for their information and concurrence. Doctor Barton urged the Delegates to disseminate the statement to members of their county societies upon their return from the Annual Meeting.

Unfinished Business

Board Chairman Barton then presented a motion, on behalf of the Board of Trustees, that Will W. Ward, Jr., M.D., Louisville, be elected to a four-year term on the KMA Judicial Council. The motion was seconded from the floor and carried.

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 1

Paul J. Parks, M.D.
Chairman

Reference Committee No. 1 considered the following Reports and Resolutions:

1. Report of the President
2. Report of the President, Auxiliary to KMA
3. Report of the President-Elect
4. Report of the Speakers of the House
5. Report of the Chairman, Board of Trustees
6. Report of the Secretary-Treasurer
7. Report of the Editor
8. Report of the Delegates to AMA
9. Report of the Executive Vice President
10. Report of the Advisory Committee to AKMA
11. Report of the KMA Medical Student Section Governing Council
12. Report of the Kentucky Medical Insurance Company Board of Directors
13. Report of the KMA Physicians Services, Inc.
Report of the KMA Insurance Agency, Inc.
Report of the Kentucky Medical Management & Computer Operations, Inc.
14. Report of the KMA Physicians Financial Services, a Federal Credit Union
Special Report A of the Board of Trustees—Health Care Access
Resolution A—Hotline/Referral System (Board of Trustees)
Resolution J—Kentucky Medical Insurance

Company (Adair County Medical Society)

Resolution X —KMIC Insurance for Family Physicians (Garrard County Medical Society)

Resolution CC—Medicaid and Indigent Care (Campbell-Kenton County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 1 reviewed the following items and recommends they be filed, as indicated by the consent of the House, without discussion:

1. Report of the President—Filed
2. Report of the President, Auxiliary to KMA—Filed
3. Report of the President-Elect—Filed
4. Report of the Speakers of the House—Filed
6. Report of the Secretary-Treasurer—Filed
7. Report of the Editor—Filed
8. Report of the Delegates to AMA—Filed
9. Report of the Executive Vice President—Filed
10. Report of the Advisory Committee to AKMA—Filed
11. Report of the KMA Medical Student Section Governing Council—Filed
12. Report of the Kentucky Medical Insurance Company Board of Directors—Filed
13. Report of the KMA Physicians Services, Inc.—Filed
Report of the KMA Insurance Agency—Filed
Report of the Kentucky Medical Management & Computer Operations, Inc.—Filed
14. Report of the KMA Physicians Financial Services, a Federal Credit Union—Filed

Reference Committee No. 1 takes this opportunity, on behalf of the Association, to express to the Officers, Board of Trustees, and committees reporting to us, sincere appreciation for their dedication and efforts in carrying out their assigned tasks for this Associational year.

Report of the President

The primary commitment during my year as President was to improve relationships with state government. Our major task was to promote the interest of the KMA and its component societies and preserve and protect the interest of our patients. From the beginning, we signaled KMA's intent and interest in an ongoing

HOUSE OF DELEGATES

dialogue with state government, and to a great extent, we have been successful.

During the 1984 Kentucky General Assembly, we worked with members of the Legislature to defeat 39 of 40 ill advised proposals. On the positive side, we were diligent in supporting several health and safety proposals, including the Drunk Driving Bill. We established an excellent relationship with the Cabinet for Human Resources and other state agencies. Overall, we have been extremely successful, and I am proud of our relationship with the present administration. We also worked very hard with our allied health friends during the year, particularly the Hospital Association, in reaching a consensus on issues of mutual concern.

Even though we placed unprecedented emphasis upon external relationships with government and our allied health friends, we were just as active internally. We formalized and placed into operation the Kentucky Medical Management & Computer Operations Company (KMCO). Over the long-term, I believe KMCO will play a substantial role in maintaining a cohesiveness within the profession. KMCO provides management and computer services which are in the doctors' best interest rather than in the economic interests of other "for profit" companies. The services of KMCO are designed and directed toward your office and for your patients. More importantly, this company is your company and will be there when you need assistance long after you have purchased the services and the equipment. Stability will be of primary importance, especially in the high-tech computer industry.

In addition, we have seen excellent growth by our other subsidiaries; including the Kentucky Medical Insurance Company, KMA Insurance Agency, and the KMA Physicians Financial Services, A Federal Credit Union. I hope you have or soon will consider these companies when contemplating your personal or business needs.

Within the KMA structure, I am pleased to report that this has been an extremely busy year. Even though we struggled for four months with the General Assembly and the inordinate amount of officer and staff time it required, we saw the birth of programs which will have a long-term influence upon the profession and the Association. First of all, we have seen a growth in membership and an awakening interest by younger physicians. We recognized a great potential for growth across the board and are making efforts in all areas to increase membership. Specialty societies are working with us, especially those with extremely low KMA membership.

We have instituted special programs to attract new medical graduates and women physicians. We have held meetings with students, residents, women physician groups, and specialty officers to explain our efforts, and more importantly, seek their input and determine any special needs they may have. Finally, we have hired a full-time person to work on membership and retention. Excellent preliminary results have occurred.

The major issue before the House of Delegates will be the Health Care Access Program. This program is explained in detail in other reports, and I will not elaborate upon its provisions. Your officers, special ad hoc committees, and staff have met almost weekly devoting numerous hours to this project. We are fully aware that Kentucky physicians have traditionally taken care of the needy regardless of their financial situation. By adopting the Access Program, we simply formalize the structure in a manner which allows us to gather the data and prove KMA's traditional position that contributions of Kentucky physicians to the poor and needy are enormous. Once we combine these figures with the estimated \$12 million per year contribution to the "documented" welfare patients, we can more effectively state our case to the public, the government, and the bureaucracy.

Early this year, we asked you to freeze your fees for one year. The results have been, in my estimation, outstanding. Unfortunately, the U.S. Congress acted unwisely by adopting the par, non-par Medicare participation concept which blunted the private sector's initiative. The AMA has initiated legal action to halt this unconstitutional intrusion into medical practice.

As a result of the fee freeze, the Access Program, and the positive actions in the General Assembly, we have received excellent public relations from the Kentucky media.

As I reflect upon the 83-84 Associational Year, it pleases me to have participated with an outstanding group of people. The Board of Trustees has represented you well, focusing upon those issues which affected you the most. During this year, 12 of 15 Trustee Districts have held meetings, and it has been a privilege to speak to most of them.

The strength of this Association and its subsidiaries is its unity of purpose. I am extremely pleased with the cooperation that exists among KMA and the companies formed by the Association. Activities of the various staff are closely coordinated and designed to serve you.

As a practicing surgeon for over 30 years, it has been my privilege and good fortune to practice medicine at

HOUSE OF DELEGATES

its apex. The 50's, 60's, and 70's, in terms of scientific and economical advancement, were unprecedented for the physician. We practiced in a time relatively free of government and bureaucratic encroachment. Trends in medical care and unorthodox practice patterns that are occurring in the 80's will create a furor among physicians and groups with which we labor. Conflicts will increase particularly among hospitals as they seek to survive in a health care climate oriented away from in-hospital care. Innovations in medical practice will strike at the very heart of our present philosophy and create chaos among traditionalistic practitioners. While we may differ in opinion on how and where patients are treated, nonetheless, we must recognize the continuing need for the unity of county, state, national, and specialty medical organizations.

In closing, let me wish the best of luck to Charles Smith. In Doctor Smith you have chosen an excellent and articulate spokesman for physicians, and he has exciting plans for next year. Kay and I want to thank you for the opportunity of serving, and wish you the best in the coming year

James B. Holloway, Jr., M.D.
President

Report of the President, Auxiliary

"Celebrate Health" was chosen as the theme for the 61st year as the Auxiliary to the Kentucky Medical Association. The goal of my year has been for our membership to promote, proclaim, and praise the health and quality of life for all those around us in our separate communities. We were to function as an Auxiliary team involving members at large, component auxiliaries, our state Board of Directors, and the AAMA. We were to renew our emphasis on promoting health education, concentrating on the child and young adult. We were to promote programs that increased awareness of child abuse, substance abuse, and safety on the streets. We were to encourage fund raising for the Ronald McDonald Houses of Lexington and Louisville.

One of the most enjoyable and effective roles that I have played as the leader of the Auxiliary team this year has been representing our organization to component auxiliaries, the KMA, and our health-related organizations. I was indeed honored to visit so many of our local auxiliaries during the year, and pleased with the opportunity to communicate with our membership on a one-to-one basis. Appearing before the KMA Board

of Trustees at its meetings, and attending several KMA District meetings, gave me the opportunity to express our goals and programs to the KMA membership. These District meetings also provided an opportunity to meet with auxiliaries and potential auxiliaries in a setting other than an Auxiliary meeting. Lines of communication have been established with the Kentucky Dental Auxiliary, the Kentucky Hospital Association Auxiliary, and the Kentucky Association for School Health.

I have worked very diligently to improve membership and membership participation in our programs. This year saw the establishment of a new auxiliary in Marshall County, the reestablishment of an organization in Mason County, and the resurgence of collected dues in Wayne County. There have also been the disappointments in my efforts to organize Floyd County and retain Franklin County as a component. Also, interest and organization have apparently failed in Pike County this year. The importance of willing leadership in a component auxiliary cannot be stressed enough. Even though we have had a slight increase in the number of in-training and medical student spouses, I still feel the potential is so great here. The frustration of our inability to attract members-at-large cannot be emphasized enough. An additional billing sent to prospective members this year hasn't increased our membership at this level. Our AKMA membership is still only about 30% of the KMA membership. A proposal to investigate the possibility of a dual billing system with the KMA continues to be before the KMA Advisory Committee to the AKMA. I am pleased in the fact that our Membership Contest has peaked some interest, and that our membership figures are slightly higher.

With the knowledge that good communication is vital to any organizational effort, I have attempted to keep in touch with those across the state. Because of the efforts of our "Bluegrass News" staff, our total membership has received four effective publications. Included in the fall and spring editions have been complete information and registration forms for the Fall Board Meeting and the Annual AKMA Convention. I have attempted to communicate with all Board of Directors members and members-at-large with a monthly newsletter. My telephone and typewriter have been used on almost a daily basis to communicate with members of all types on a one-to-one basis. I have appreciated the efforts of those counties which included me on their newsletter mailing list. Communication needs to be a two-way system.

The "Celebrate Health" theme has been emphasized

HOUSE OF DELEGATES

during three AKMA meetings this year. Owensboro's Executive Inn was the site for a Leadership Conference in August. This conference, which is aimed at educating state and county leadership in administration and program content, was also open to all members. It was held on a Saturday for the first time this year, hoping to attract those who are unable to attend on a weekday, and to encourage husbands and families of members attending to spend the weekend. Since attendance was no better than last year, with 55 attending, it must be assumed that a weekend meeting at least does not encourage more participation. A format of "Back to Basics" round table discussions was again used with seminars presented on Membership, AMA-ERF, Health Projects, Bylaws, and Parliamentary Procedure. An afternoon seminar was presented on Time Management.

Our AKMA Fall Board Meeting was again held in conjunction with the KMA Convention, this year the site being Ramada Inn Convention Center in Louisville. This September meeting provided an opportunity for a business session of our Board of Directors, a chance for the AKMA to provide other activities for its members and potential members who had accompanied their spouses to the KMA meeting, and the inclusion of the AKMA leadership in activities of the KMA Annual Meeting. Dr. James Holloway, who was installed as President of the KMA at this meeting, brought greetings during our business session. William Doll, Legislative Affairs Director of the KMA, updated the Board on issues facing medicine during the 1984 Kentucky Legislative Session. A luncheon at Big Spring Country Club was followed by a style show and seminars on home decorating. A shopping spree, with provided transportation, was offered to all members and spouses of KMA members.

The site for the 62nd Annual Convention is Richmond, with activities scheduled on the Campus of Eastern Kentucky University, Boone Tavern and Berea, White Hall State Shrine, Boonesboro State Park and Bybee Pottery. This schedule includes the customary Pre-Convention Board Meeting, the House of Delegates Annual Session, the Post-Convention Board Meeting, and a Leadership Conference. In addition to meal functions, a shopping tour of Berea, a style show, and tours of several historic and unique sites will be offered. It is hoped our membership will enjoy this first opportunity by the Madison County Medical Auxiliary to host this annual meeting.

Once again this year, our AKMA leadership attended three meetings of the AMAA. In June, our delegation

of five attended the Annual Session of the AMAA. We were fortunate to have in attendance a county president-elect who served as an alternate delegate. The entire delegation attended training sessions in addition to the House of Delegates sessions. Our Kentucky delegation wore cross-stitched name tag ribbons depicting our state's symbols. I am sure our state will once again start a new trend at national meetings with our special identification. Our organization received recognition with Immediate Past President Ellen Sklar's report, my introduction as the new President of the AKMA, and a special AMA-ERF recognition for Boyd county as the fourth highest per capita contribution in the nation.

In October, I attended the AMAA Confluence along with the President-Elect, the First Vice-President, and four county President-Elects. Those counties represented by their President-Elects were Jefferson, Fayette, Daviess, and Warren-Edmonson-Butler. Once again, all of us came away from this meeting with much new knowledge and enthusiasm for our jobs. In February, our organization was represented at the national level by the attendance of our President-Elect and President-Elect nominee at the AMAA Cluster meeting.

Once again this year, our legislative national interest and our cooperation with the KMA was reemphasized as we made our annual trip to Washington, D.C., in June for the KMA Washington Dinner. In addition to myself, our President-Elect, and our Parliamentarian, in her role as a member of the KEMPAC Board, joined with other members of the KMA delegation in visits to the AMA for briefings, and to the offices of our Kentucky Senators and Representatives. The Auxiliary representatives helped host a dinner for these Congressman and their staffs. This is truly a trip where one learns how well our national organized medicine dollars are being spent.

Our standing committees and their chairmen have certainly continued in the tradition of this Auxiliary in promoting their programs to make this another year of accomplishment. AMA-ERF projects promoted by our Auxiliary this year have been an originally designed "Derby Apron," a raffle for a home computer, and our participation in an AKMA sharing card. The Bylaws Committee has once again put in long hours evaluating our newly revised set of Bylaws that were instituted at the Annual Meeting in the spring, and proposing a few new amendments. This Committee has also been encouraging all component auxiliaries to ascertain that their Bylaws are in line with the state and national Bylaws.

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

The Finance Committee has kept a close eye on our budgeted monies. The Health Careers Loan Fund Committee awarded another six loans in allied health fields. Numerous programs and materials have been offered to our component auxiliaries by the Health Projects Committee. We have printed and circulated 2500 "Soozie" Drug Abuse Coloring Books to elementary school age children across the state.

Many of our component auxiliaries have raised funds for the Ronald McDonald Houses. A direct donation has been made to each of these Houses from our AKMA treasury. A planned fund raiser sponsored by this organization and a group of Louisville businesses to encompass the entire state and benefit both Ronald McDonald Houses has been delayed from this spring until next fall. Our Planning Committee took on a new face with the addition of three county presidents to this body.

Administratively, the year began with the resignation of our part-time executive secretary and, fortunately, her replacement. At times, both of us have thought it was like "the blind leading the blind," but, we have made it through. A special committee was appointed to review our job descriptions, update them, and bring them into line with our new Bylaws. For the first time, there will be a printed roster of our AKMA membership available to all Board and general members. Unfortunately, we experienced the resignation of our Finance Chairman and Treasurer during the early months of our tenure; but fortunately, these positions were filled with able and dedicated people.

As this year of "Celebration" comes to an end, I can't help but feel that it has been a productive one for our organization. This productivity has been achieved because of the efforts of many individuals that have given so freely of their time and themselves.

Mary Veurink
President

Report of the President-Elect

The position of President-Elect provides a unique opportunity to serve the Association and learn as well. This year has certainly been a significant learning experience for me.

Probably of greatest interest has been to see and play a first-hand role in the activities of the Board of Trustees and the KMA committee system. The Board has

dealt with a number of difficult, and even controversial, issues this year, many times with the assistance of committee input. The future will show whether many of the decisions made were correct, but I can give assurances that all were made in the spirit of sincerity and concern for the Association and the profession.

It is vital that the Board work to achieve consensus because of the many significant changes that are taking place that affect the profession. To name a few, this year we have seen dramatic efforts by hospitals to maintain a high census that range from public advertising to creation of hospital-owned physician office buildings; the development of the Health Care Access Program, originating in Lexington; Medicare reimbursement changes; hospital reimbursement on the basis of diagnosis related groups; directly competing insurance proposals offered by third-party payors and hospitals; and a voluntary fee freeze, as well as a mandatory fee freeze measure by Congress on Medicare charges. Finally, physician practice plans have proliferated in the form of preferred provider organizations (PPOs), including a proposal for a county-wide PPO or individual practice association by a county medical society.

Many of the reports contained in this booklet address some of these issues directly, but all of these things represent changes which primarily have been initiated by forces outside medicine. These changes have been prompted by economic realities and defensive perceptions on the part of hospitals and physicians. Many of these changes are beyond our ability to influence because they do have economics as their genesis. Perhaps we have been too quiescent as an organization and have not adequately tried to influence these issues, but on the other hand, perhaps these are facts we are not in reality in a position to affect.

As programs and trends evolve, there are some areas on which the Association can bring some influence. Perhaps our organization can better direct many outside movements if we involve the membership more fully, as well as focus on specific segments of the membership for input. To this end, I respectfully address your attention to reports and Resolutions dealing with the Hospital Medical Staff Section, the Medical Student Section, and a proposed Resident Section. These are areas of involvement that I would like to stress in the coming year, as well as try to analyze trends involving hospitals and care delivery movements.

Just as the "medical industry" is evolving, so must our organization evolve and grow. I very much look

HOUSE OF DELEGATES

forward to being a part of that effort, and humbly thank you for your trust and confidence in selecting me.

Charles C. Smith, Jr., MD.
President-Elect

Report of the Speakers of the House

Your speakers would like to express our thanks for your confidence in selecting us to serve you, and pledge our best efforts to that service. With your help, we look forward to a productive exchange of ideas and the adoption of objective and effective KMA policy.

To assist in the proper order of House business, we would direct your attention to a few items. Enclosed in the delegates packet is a Rules Booklet, which contains the standing operating rules of the House that you have developed, as well as excerpts from the Rules of Order book. No rules have been added this year, but the floor will be open during the first meeting of the House in the event that a Delegate wishes to propose a rule.

Included in the Rules Booklet is our direction regarding fiscal notes to be applied to reports and Resolutions that will require the expenditure of Association funds not already specifically allocated. All Resolutions received have been reproduced for the Delegates' attention, but fiscal note directions may be required on some.

The Speakers will be available to all Delegates throughout the session for consultation and comment. We solicit your questions. The Rules Committee members will also be available for consultation.

In a personal vein, I would like to note the efforts of our Vice Speaker, Doctor Heavern, who has sustained some illness throughout the year, but has nevertheless continued to contribute his fine efforts and good counsel.

Finally, we urge your close attention to reports, Resolutions and all matters coming before the House.

Peter C. Campbell, Jr., M.D.
Speaker, House of Delegates
Thomas L. Heavern, M.D.
Vice Speaker, House of Delegates

Report of the Secretary-Treasurer

It is my privilege to report to the membership on the corporate status of the Association. Just as have individual members, the Association must continue to confront the realities of the difficult economy and the

continuing effects of inflation. However, this year's dues increase has enabled us to maintain our sound financial footing and a strong fiscal position. To this end, I would direct your attention to the report of the Auditors, which is available.

As is pointed out, dividend income has remained lower than in years past, and accountants have predicted that this trend has little likelihood of changing significantly. For this reason, penurious attention to all areas of operation must continue.

Of interest from KMA's corporate standpoint is a look at the activities of the KMA "family of companies." These include KMIC, the KMA Insurance Agency, the Holding Company, the Credit Union, and our consulting and computer company, KMCO, which is in its first year of operation. This group of organizations has been created to serve you, the KMA member, in a variety of ways. Please read the reports on these groups closely, and please seek out the involved physicians and staff members for any questions you might have.

While our corporate management is vital to the success of the organization, it truly is only secondary to the support of professional Association activities. An indication of that success can be seen in the Reports and Resolutions that have been presented to you. Although there are disparate interests within the profession, as well as segments of the membership that have separate specific goals, we remain unified as a profession under the KMA umbrella. The organization has evolved as a corporation to achieve this goal.

I appreciate your trust in selecting me to serve, and very humbly pledge my continued best efforts.

S. Randolph Scheen, M.D.
Secretary-Treasurer

Report of the Editor

It is gratifying to give a report to the membership on another successful year.

The Editors meet once a month to review scientific articles submitted by Kentucky physicians, to discuss Letters to the Editor and to consider any other requests for publication in the *Journal*. Besides attending these regularly scheduled meetings and reading numerous pages of copy in preparation, each editor is responsible for writing two editorials per year. As an indicator of the excellence of this writing, other state medical journals, as well as the *AM News* have reprinted many of these editorials.

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

A constant goal of the Editorial Board is improvement in the *Journal* to make it beneficial to members. Membership response has been favorable as we begin our second year of incorporating graphic design changes in the *Journal* and using cover photographs and art to highlight each issue's contents.

At the same time, it is worth pointing out the importance of the regular features that are a tradition with the *Journal*. The Grand Rounds section contributed by the University of Kentucky and the University of Louisville Schools of Medicine is an integral feature each month. Each school is to be commended for its time and effort.

The Letters to the Editor column is another ongoing tradition that we encourage all of you to use. The Editorial Board solicits your opinions on matters important to you.

As Editor, I would like to give a special thanks to the Editorial Board for their dedication and diligence.

A. Evan Overstreet, M.D.
Chairman

Report of the Delegates to AMA

The 1984 Annual Meeting of the American Medical Association House of Delegates was held in Chicago on June 17-21, 1984. Seated were 355 delegates, and it is interesting to note that only one delegate was absent from the meeting which represented almost 100% attendance. The House considered 184 resolutions and 76 reports, 50 of the 76 reports coming from the Board of Trustees and the other 26 coming from various AMA councils. The business of the AMA House continues to be voluminous, and obviously it will be impossible to report on each issue considered in this report. Those issues which we feel are perhaps of greatest interest will be reported, but in the event any member has a question about these or other issues which were considered by the AMA House of Delegates, any member of our AMA delegation would be happy to respond to inquiries.

MEDICARE PREADMISSION REVIEW—Of particular importance to the Kentucky Medical Association is Report G of the Council on Medical Service. Report G was developed as a result of the Resolution submitted by the KMA House of Delegates to the American Medical Association House of Delegates opposing mandated preadmission review. Report G of the Council on Medical Service also opposed mandating preadmission re-

view and supported the prerogative of individual peer review organizations to implement focused preadmission review on a **volunteer basis**.

MEMBERSHIP—The House approved several recommendations of the Board of Trustees contained in a major report about AMA finances and membership.

1. Of foremost interest to AMA members is that AMA dues will be maintained at current levels in 1985. However, the Reference Committee cautioned the House that dues may have to be increased by \$30 in 1986, and by an additional \$30 in 1987 unless we reduce services and/or increase membership.

2. State medical associations will be allocated one extra delegate when 75% or more of the state society's members are also AMA members. Unified states (presently there are only two, Illinois and Oklahoma) will be granted two additional delegates.

3. The dues exemption policy was revised so that this membership category is limited to members who are at least 70 years of age and fully retired or suffering financial hardship and/or disability.

4. Members who are at least 70 years of age and working no more than 20 hours per week pay one-half of regular dues.

5. Members who previously qualified for dues exemption under criteria other than financial hardship would continue to be eligible under the Grandfather Clause.

6. The Judicial Council was expanded from five to seven members in an effort to appropriately consider the increased workload of the Council.

RATIONING OF MEDICAL CARE—Report 1 of the Board of Trustees indicated that current AMA policy is appropriate and if guidelines were necessary for rationing of health care, the medical profession should be one participant in the process, and that it is not appropriate for the AMA, by itself, to develop such guidelines.

PAYMENT FOR PHYSICIAN SERVICES—Report A of the Council on Medical Service discussed the Council's continuing study of third-party methods of payment for services of physicians and recommended that the AMA establish as policy a preference for a pluralistic approach to third-party payment methodology under fee for service and the report was adopted.

ADVERTISING OF PRESCRIPTION DRUGS—Report QQ of the Board of Trustees was adopted recommending that AMA oppose the advertising of prescription drugs in media intended for the public.

LEGAL DRINKING AGE—Resolution 40 was adopted

HOUSE OF DELEGATES

which called upon the AMA to work to establish 21 as the legal drinking age throughout the United States.

DRGs—The most dominant issue at the Annual Meeting was perhaps DRGs and their effect on the quality, cost and availability for care. A total of 26 resolutions were introduced dealing with DRGs; 12 of those 26 dealt specifically with the offensive attestation statement which physicians are required to sign on hospital charts. Actions taken by the AMA House include: (1) continue the AMA's strong and concentrated efforts to seek elimination of the DRG attestation statement that requires physicians to certify primary and secondary diagnosis and procedures; (2) seek legislative and regulatory changes to ensure the differences in DRG-based payments to different categories of hospitals are based on true differences in the cost of providing services by those hospitals, rather than on arbitrary geographic criteria (rural and urban); (3) oppose the mandated cookbook decision tree method of establishing a treatment regimen as cost effective under the Medicare payment system; (4) oppose the expansion of DRGs to physicians; and (5) seek changes in the DRG system to provide adequate reimbursement for events arising during hospitalization that significantly add to a patient's requirement for care.

HEALTH POLICY AGENDA—A special reference committee was appointed to consider 159 principles developed by the Health Policy Agenda for the American people. These principles are broad value statements and the House voted to endorse them as working principles to help guide AMA representatives throughout the remainder of the project which is scheduled for completion in 1986. The next phase which will translate the principles into policy recommendations and action plans is anticipated to be much more difficult than that portion already completed.

AUTOMOBILE SAFETY—Six Resolutions were introduced dealing with automobile safety. The House took the following action: (1) supported mandatory installation of air bags in domestic and foreign cars; (2) supported legislation promoting the availability of seatbelts in all motor vehicles, including buses and taxis, used to carry passengers; (3) supported mandatory seatbelt use laws; and (4) supported mandatory child passenger restraint laws.

TOBACCO AND HEALTH—The AMA House of Delegates took a rather aggressive anti-smoking stance which is felt to be stronger than any position the House has previously taken. Included in the positions taken are: (1) urge Congress to strengthen warnings on ciga-

rette packages to say that smoking causes cancer of the mouth, larynx, and lungs; is a major cause of heart disease and emphysema; is addictive; and may result in death; (2) study the safety and efficacy of nicotine chewing gum as an aid to smoking cessation; (3) ask the Surgeon General to place health hazard warnings on all snuff and chewing tobacco packages; (4) encourage physicians to schedule extra time to explain the health hazards of smoking to their patients; (5) urge hospitals, offices and all other medical care facilities to declare themselves off-limits to smoking; and (6) work to protect the health of non-smokers on airplanes.

HOSPITAL MEDICAL STAFF—The Hospital Medical Staff Section met for two days prior to the opening of the AMA House meeting. Over 700 representatives were registered from virtually every state and they considered 60 Resolutions, 18 of which were submitted to the AMA House for consideration. To say that the establishment of the Hospital Medical Staff Section by AMA has been a booming success would be an understatement!

PROFESSIONAL LIABILITY—For the first time in history a Resolution was introduced seeking the AMA Board to consider the possibility of a Federal solution for the professional liability problem. A special task force was appointed to study the issue and AMA Executive Vice President, James H. Sammons, M.D., will chair the task force. The task force has been requested to submit a report at the 1984 Interim Meeting in December.

COGNITIVE SERVICES REIMBURSEMENT — Five Resolutions were introduced dealing with cognitive services. The AMA House approved a substitute Resolution that asked the AMA to (1) support the concept that third-party payors should provide more equitable reimbursement for physician services which are solely cognitive in comparison with their procedural services and (2) take appropriate action to promote more equitable reimbursement for solely cognitive services with third-party payors, business groups, and other professional associations.

AMA REGISTRATION AND MEETING SITES—Due to increased registration, the Annual Meeting for 1987 is being moved from the Chicago Marriott to the Conrad Hilton. The Interim Meeting is also being moved from Houston, Texas to Las Vegas, Nevada in 1986 for the same reason.

ELECTIONS—Speaker of the AMA House, Harrison Rogers, from Atlanta, Georgia, was elected without opposition as President-Elect of AMA. AMA Vice Speaker,

HOUSE OF DELEGATES

Jim Davis, from North Carolina, was elected without opposition as Speaker of the AMA House of Delegates. Elected Vice Speaker of the AMA House of Delegates was Doctor John Clowe from New York.

Trustees elected included incumbent John Dawson from Washington State and incumbent William Hotchkiss from Virginia. Challengers who were elected to the AMA Board of Trustees included Doctor Joe Painter from Texas and Doctor Robert McAfee from Maine. The AMA House elected for the first time in its history a resident to serve on the AMA Board of Trustees and filling this spot will be Ron Davis from Illinois. Also, for the first time in history the House elected a student to sit as a member of the AMA Board of Trustees and filling this spot will be Alice Chenault from Alabama. (It is interesting to note that Alice is the daughter of a former AMA Trustee, John Chenault). Defeated in his re-election efforts for the AMA Board of Trustees was Doctor Jack Lewis from Ohio. Challengers for the AMA Board of Trustees who were defeated include Doctor Brad Cohn from California; Doctor Lonnie Bristow from California, running as a delegate of ASIM; and Doctor Fred Rainey from Kentucky.

The Kentucky AMA delegation, officers and staff are to be commended for a truly outstanding campaign which they conducted. All individuals worked diligently and cooperatively together, but the votes were not there.

Fred C. Rainey, M.D.
Senior Delegate

Report of the Executive Vice President

This year has been unprecedented in terms of the demands placed on your officers, Board, committees and staff. While daily KMA related meetings have become the norm, we frequently have multiple meetings over a one- or two-day period. The organizations located in the Headquarters Office, in addition to KMA, now include the Kentucky Medical Insurance Company; the KMA Insurance Agency, Inc.; KMA Physicians Services, Inc.; KMA Physicians Financial Services, A Federal Credit Union; the Rural Kentucky Medical Scholarship Fund; the Kentucky State Board of Medical Licensure; the Auxiliary to KMA; and our newest company, Kentucky Medical Management & Computer Operations, Inc.

These companies, while independently managed, have a common goal of providing the best possible service at the most reasonable price to Kentucky physicians.

This requires a coordinated effort among the various entities at 3532 Ephraim McDowell Drive, and I am pleased to report that the level of inter-agency cooperation and *esprit de corps* is high.

Kentucky medicine has entered a new era in terms of the socioeconomic aspects of practice. While government seeks to minimize its obligation to fund State and Federally mandated health care programs, investor-owned providers seek to maximize their profits. Insurance carriers find it impossible to sell coverage with inflated premiums resulting from costs shifted to the private sector and are negotiating with hospitals to pay for only those costs generated by their insured. That puts pressure on hospitals to find other sources of income in order to survive. Many have chosen to provide services or to enable others under their influence to provide services which will have profound effects on the hospital/physician relationship.

The political promises of the past have developed into today's economic realities and budgetary hardships, and it has been suggested that a significant population of Kentucky citizens find themselves unable to purchase health insurance or to afford to pay for it out of pocket. Often these individuals do not meet guidelines which would make them eligible for government assistance.

This issue is discussed at length in Special Report A which is before the House of Delegates. It has had and will continue to have a tremendous impact on the perception of the profession by the public, government, and the press. While KMA's role will be defined by the House, it has been necessary to make plans to operate such a program contingent on House action. Most of that work took place during the period the Kentucky General Assembly was in session, which required a one hundred plus percent commitment from your staff.

Combine the activities of your companies, the "all out" effort necessary for a successful legislative session, the health care access issue, and staff's involvement in national affairs such as Doctor Fred Rainey's campaign for the AMA Board, and you can see that this has been an extraordinary year.

The 1984 Kentucky General Assembly demanded an inordinate amount of time and resources of KMA staff from mid-December to May 6. The attitude of Kentucky's legislators toward providers now borders on hostility over the health cost issue. This environment makes it difficult for KMA to influence lawmakers. Our efforts were successful this year, however, thanks primarily to State Legislative Chairman Doctor Carl Cooper, the KMA

HOUSE OF DELEGATES

Key Man team, the fine work of KMA's staff lobbyists, and your officers and Board members who gave so willingly of their time. We should not assume, though, that we can maintain that success level without the total commitment of our entire membership.

Membership

KMA membership is at an all time high. However, figures can be misleading, and we reluctantly point out that we are not attracting the young physician at an acceptable percentage. As you will note in the KMA Membership Committee and Trends Committee Reports, activities are ongoing which we believe will correct the present course. We are making every effort to refocus our recruitment efforts with our primary objectives of bringing more women physicians, more physicians under 40 years of age, and more resident physicians into KMA membership. Preparations are underway to heighten KMA's visibility to nonmembers and demonstrate the value of our organization based on the particular needs and concerns voiced by nonmembers.

Your Board of Trustees, staff, and Membership and Trends Committees are pursuing every avenue and opportunity to bring new members into the Association. The adoption of the proposed Medical Staff Section and Resident Business Section should prove most helpful in these efforts.

Finances

KMA's first dues increase in eight years was voted last year to maintain the financial stability of the Association. We anticipate that we can return to our five-year dues plan and not have to consider another increase at least until 1989. We will continue on our course of attempting to minimize costs and maximize investments.

While membership and administrative duties have increased over the years, staff continues to make every effort to reduce expenditures while maintaining the traditional high level of service. Your KMA staff size is essentially the same as it was 10 years ago, yet it maintains continuity of proven programs and meets the daily challenges of a changing society while planning for future demands.

The seed monies which the House authorized for the various companies connected with KMA have proven to be exceptional investments in terms of long-term benefit to members. KMIC and the KMA Insurance Agency have already proven to be outstanding suc-

cesses, and both our Credit Union and the Kentucky Medical Management & Computer Operations will no doubt prove to be just as strong. These companies offer unique and tangible membership benefits of the Association and are part of KMA's ongoing efforts to provide positive and creative programs.

The continuing rise in health costs has created a widening void between business and the providers of medical care. The Kentucky Medical Association has devoted a great deal of effort this year to communicate with business and industry and to assist where it can to make Kentucky attractive to outside industries. Recently, the Kentucky Chamber of Commerce noted that offices representing over 150 physicians had recently become members of the Kentucky Chamber.

KMA's latest building addition was completed in July, 1983, and is being used to capacity. We expect some changes to be made soon with regard to the present tenants due to the growth of our various companies.

The Association has received a good deal of positive exposure from the media this year. The endorsement of the AMA's call for a voluntary freeze on physicians' fees, KMA's response to the Health Care Access Committee's report, our positive stand on major legislative issues, and KMA's caution on the use of steroids by high school athletes all have been viewed very favorably.

Staff developed a speech/slide presentation on health costs which gives medicine's side of the health cost issue. It is designed for nonphysician audiences and is available on request from the Headquarters Office. The presentation has received favorable comments and we encourage members of the House of Delegates to help tell medicine's story in their communities.

On behalf of staff, thanks to each of you for your support. We strive to represent you at all times with integrity and with the interest of physicians and patients foremost.

In closing, I'd like to note that a more dedicated and harder working group does not exist than the KMA staff. Their efforts and cooperation are unsurpassed and the privilege of working with them gives me great pleasure. The staff's heavy workload this past year becomes apparent as you read the reports of the committees to the House of Delegates.

Robert G. Cox
Executive Vice President

HOUSE OF DELEGATES

Report of the Advisory Committee to AKMA

On behalf of the Advisory Committee to the AKMA, it is my pleasure to present the annual Report to the KMA Board of Trustees and the House of Delegates. The Committee is fully aware of the numerous activities carried on daily by the Auxiliary and its outstanding contributions to our local and statewide community. The Auxiliary leadership has made herculean efforts over the past few years to increase membership and participation in the local societies. Some positive results have been obtained, and efforts are ongoing to surmount this problem.

The Committee is pleased to report that the AKMA has again surpassed its previous records in obtaining contributions to the AMA-ERF Funds. We call your attention to the 1983-84 President of the Auxiliary Report for information regarding the AMA-ERF and other projects so ably carried out by the AKMA. The Committee congratulates Mrs. Charles (Mary) Veurink of Richmond for her accomplishments as President during the 1983-84 Associational Year. We also look forward to working with Mrs. William (Adelyn) Spalding of Louisville during the coming year.

Dwight L. Blackburn, M.D.
Chairman

Report of the KMA Medical Student Section Governing Council

This past year has been one of growth and change for the KMA Medical Student Section. We now have large and active memberships at both the University of Louisville and the University of Kentucky medical schools.

In December of 1983, the Section sent five student representatives to the AMA-MSS Interim Meeting in Los Angeles. Our delegation included Credentials Committee member, Steve Wilson. The convention provided an opportunity for the U of L and U of K members to meet and discuss their respective goals and to learn how the KMA-MSS fits into the structure of the AMA-MSS.

Following elections of KMA-MSS Governing Council members from each school, 15 representatives (10 from U of K and 5 from U of L) went to the AMA-MSS Annual Meeting in Chicago in June of 1984. Members offering testimony at the Annual Meeting included U of L stu-

dent, Carol Redel. Discussions about the future plans for the KMA-MSS were also held in conjunction with the AMA-MSS Annual Meeting.

The University of Louisville Chapter of the KMA-MSS is currently undergoing a period of reorganization and expansion in an attempt to fill the void left by the recent de-emphasis of the American Medical Student Association (AMSA). Plans include a major recruitment effort for the Medical Student Section for both KMA and AMA. The first in a series of monthly meetings will feature discussions by representatives from the KMA Physicians Financial Services and the Kentucky Medical Management & Computer Operations.

The University of Kentucky Chapter is promoting awareness of the MSS among students. During the 1983-84 school year we sponsored a blood pressure screening clinic which was very successful. Another one is planned this year, and we look for expanded participation by the students. Long-term plans for the 1984-85 school year include making the students aware of the Medical Student Section and setting up prearranged discussions between students and area physicians.

We look forward to future growth and progress during the year ahead.

Brian Zachariah, Chairman
Donald R. Douglas, President

Report of the Kentucky Medical Insurance Company

The Kentucky Medical Insurance Company completed its fifth year of operations on June 1, 1984, and with this, brought to conclusion the first major phase of its development. The plateau of over 1,700 insureds was met in 1983, bringing with it over \$5 million in written premium and over \$12 million in assets. During 1984, KMIC anticipates increasing its number of policyholders between 1,850 and 1,900. This steady growth reveals the fact that KMIC has become the largest provider of professional liability insurance to Kentucky physicians. 1984 should see KMIC reaching other important goals: total assets of \$15 million and written premium of \$7 million.

One of KMIC's major commitments continues to be its ability to offer Kentucky physicians a sound and stable source for their professional liability insurance needs. KMIC accomplishes this goal by charging reasonable and adequate rates and maintaining adequate

HOUSE OF DELEGATES

reserves, as recommended by its professional actuaries. Although commercial carriers have continued to withdraw from the Kentucky market, KMIC has pledged to be here — regardless of what the claims or market conditions might be. KMIC has also committed itself to always be direct with its policyholders, announcing in advance what rates need to be charged, with no late surprises. KMIC strives to maintain a close working relationship with its insureds by meeting with representatives of various specialties to discuss proposed rate or classification changes. By providing specially developed claims prevention seminars throughout the state and utilizing highly qualified committees of physicians, KMIC ensures that the voice of the physician is heard in his or her own company.

Other ways in which KMIC looks to provide quality coverage and services to Kentucky physicians are through the development of a special, modified claims-made policy and a convenient premium payment plan. KMIC also works hand-in-hand with the KMA Insurance Agency, Inc., which offers personal lines of Insurance tailored specifically to the needs of Kentucky physicians.

The KMIC Board of Directors met on April 12, 1984, reviewed the company's financial statements, and declared on 8% stock dividend to all stockholders of record as of April 20, 1984. The Board members further stated that consideration of a dividend would be on the agenda at each spring meeting, and the company will commence on a regular basis considering a return to stockholders to the extent the required reserves and the profit and loss statement will justify. Although the purchase of stock is no longer a requirement for insurance coverage, stock can be purchased by contacting our over-the-counter market-maker, Jim Stuckert, of Hilliard-Lyons, at (502)588-8400.

KMIC continues in its pledge to give you, the Kentucky physician, a company based on quality in all areas of professional liability insurance. The basis for your company's growth will continue to be sound, conservative money management principles, recognizing its responsibilities to both its policyholders and its stockholders. We urge you to remember that this is your company, which is here to serve you, and we thank those physicians throughout Kentucky who have shown their interest in and support of the Kentucky Medical Insurance Company.

Ballard W. Cassady, M.D.
Chairman, Board of Directors

Report of the KMA Physicians Services, Inc.

KMA Physicians Services, Inc. held six meetings during the past Associational year. You will recall that this organization is a holding company, a wholly owned subsidiary of the Kentucky Medical Association, charged by the House of Delegates "to develop and expand its involvement in services of benefit to the membership as appropriate." The KMA Executive Committee serves as the holding company's Board of Directors.

When we reported to you last year, the KMA Insurance Agency was the sole company operating under the auspices of KMA Physicians Services, Inc. We are pleased to report to you this year that another corporation organized to bring benefits to the membership has been formed and similarly operates under the holding company.

Kentucky Medical Management Computer Operations, Inc. (KMCO) provides many cost saving services and products in the areas of practice management, consulting, and especially in the sale and service of computer hardware and software for our physician members.

We feel the additional benefits of KMA membership as requested by the House of Delegates are most rewarding and can mean substantial savings to the members of KMA. We urge everyone to investigate the tangible benefits now offered at considerable savings from companies operated by your Association. We welcome comments on our current programs and ideas for new ones.

The following are the reports of the KMA Insurance Agency, Inc. and Kentucky Medical Management Computer Operations, Inc.

Report of the KMA Insurance Agency, Inc.

When the Kentucky Medical Association organized the KMA Insurance Agency, Inc. in September 1978, it was with the goal of providing quality insurance products and service to Kentucky physicians. Six years later this is still the basic philosophy of the KMA Insurance Agency.

To meet the various insurance needs of the Kentucky physician, the Agency offers programs which are tailored specifically for your requirements. Some of the personal lines of insurance available through the Agency are Homeowners, Automobile, Office Protection, and Disability Income. Through the KMA-sponsored American Physicians Life Company, the Agency offers the

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

Kentucky physician several fine life insurance plans, as well as the KMA Group Life Insurance Program.

The Pension Plan Department of American Physicians Life has also developed an informative and professional pension plan seminar which is being presented to medical societies throughout the state. With the introduction of The Professionals Insurance Company to Kentucky, other professionals such as nurses, technicians, and office assistants now have a competitive marketplace for their insurance needs. The KMA Insurance Agency is able to take care of your personal insurance needs directly, or your insurance may be brokered through your local agent with whom you may have an affiliation.

The outlook for 1984 sales is excellent as the Agency continues to be alert to the insurance needs and desires of the physician and the medical community. Two full-time Agency agents, Tim Doyle and Bob Proffitt, provide complete insurance services to the physicians of Kentucky through the KMA Insurance Agency, or by providing professional representatives who are skilled in specialized areas of insurance. Several agents have been selected by the Agency and are strategically located throughout the state to furnish life insurance planning services which have been sponsored and approved by KMA.

Written premium, excluding excess professional liability insurance, in 1984 is anticipated to exceed \$275,000, compared to \$175,062 in 1983; an increase of 57% on these personal lines of insurance. The Agency provides the excess insurance protection for KMIC's professional liability insurance policyholders.

Morton C. Bell heads the Agency staff as Executive Vice President. An outstanding staff has been assembled to give our insureds the best service possible, and staff size was increased this year to meet the demands of an expanding business.

The Agency, through the Board and staff, reaffirms its commitment to provide quality insurance products and services to Kentucky physicians. The continued success of the Agency depends upon the interest and support received from the membership, and we thank those of you who have turned to the KMA Insurance Agency to fill your insurance needs.

**Dwight L. Blackburn, M.D., Chairman
Board of Directors**

Report of Kentucky Medical Management & Computer Operations, Inc.

Kentucky Medical Management & Computer Operations, Inc. (KMCO) officially became operational as a corporation in December, 1983. Although in existence since September of last year, KMCO did not begin marketing computer systems until January of 1984. Initial services consisted of consulting and practice management workshops while the staff geared up for full operations.

In reality, KMCO is not a computer company but a practice management company that utilizes computers as tools in meeting the needs of the business side of a medical practice. We offer full consulting services to provide practice management audits and develop electronic data processing plans for physicians. Our services are provided to the membership at the lowest rates in the state.

KMCO now offers computer systems to Kentucky physicians from the solo practitioner up to and including the large clinics. Our ownership of the medical software package and clinical software package assures that the physicians of the Association will obtain the most comprehensive services now and in the future. Our full-service operations give the physician and his/her staff one source to contact to obtain assistance with their computer or help in developing an effective business office.

The KMCO Board of Directors has met six times during the past Associational year to analyze and determine what services would be most beneficial to the membership. Along with the development of the necessary plans to implement office automation packages, the Board has been researching new and innovative products such as a clinical package to assist physicians in their day-to-day practice. The KMCO Board is comprised of physicians who are experienced with computers and who can provide tremendous insight into the company's future direction. One point that is clear to the entire Board is that KMCO can and will be a viable KMA corporation because it will assure economical service that is prompt, reliable, and beneficial.

The Board members and KMCO's chief executive officer have participated in a number of Trustee District meetings to provide additional information on the company and its services. By the 1984 KMA Annual Meeting, numerous mailings will have been sent to the membership. The Board asks your support of KMCO

HOUSE OF DELEGATES

when determining your office automation needs or in obtaining a management analysis of your practice.

KMCO has sold 10 computer systems in the state, provided 15 practice management consultations, conducted practice management workshops for over 250 physicians and their staffs, and is in the process of developing software packages that will maximize the use of computers in physicians' offices.

KMCO has already doubled its staff since its inception and is dedicated to serving the physicians of Kentucky. Enthusiasm in the company is high, and the Board appreciates those members who have used our services this past year. Give us an opportunity to serve you.

Richard F. Hench, M.D., Chairman
Board of Directors

In concluding our report as the holding company, we want to thank the Boards of Directors of our two subsidiary organizations for their outstanding efforts this year, and especially their respective Chairmen, Dwight L. Blackburn, M.D. and Richard F. Hench, M.D.

Donald C. Barton, M.D., Chairman
Board of Directors
KMA PHYSICIANS SERVICES, INC.

Report of the KMA Physicians Financial Services, a Federal Credit Union

During the 1982 Annual Meeting, the KMA House of Delegates authorized the Board of Trustees to pursue the formation of a federally chartered credit union as an additional tangible benefit to the membership of the Kentucky Medical Association. The KMA Physicians Financial Services, a Federal Credit Union was organized and began doing business on March 28, 1983.

KMA Physicians Financial Services is a full-service financial institution that deserves the consideration of every KMA member. It was established to be a very definite benefit to the membership as an alternative to traditional banking services. Its original and ongoing goal is to better the individual physician financially, both through investments and loans, and to provide the best of services. The credit union is available to KMA members, their families, employees, and corporations.

As of August 1, 1984, the credit union had over 1,000 individual members with deposits exceeding \$6

million from participation throughout the Commonwealth. To better serve its members, the credit union now has three full-service offices. The home office is located in the new addition of the KMA Headquarters Building, and one branch office is in the Medical Towers South building in Louisville. To serve its Lexington members, the credit union has a part-time office (hours, 10:00 a.m. to 2:00 p.m.) available in the offices of the Fayette County Medical Society. It is anticipated that this office will be upgraded to full-time status before the end of 1984.

The KMA Physicians Financial Services offers the KMA member physician, his or her family, and employees a full range of financial services including the usual checking, savings, and loans. In addition, the credit union offers its members a **no fee**, 15% APR, high limit VISA and MasterCard. In the summer of 1984 the organization instituted a Guaranteed Student Loan Program principally to assist the medical students at the University of Louisville and the University of Kentucky. All KMA member physicians are encouraged to make themselves aware of the many services of the credit union so the staff may assist you and your families and employees.

The credit union staff will be available to answer your questions and give you additional information at its booth during the KMA Annual Meeting, or through any of its office locations.

Charles C. Smith, Jr., M.D., Chairman
Board of Directors

END OF CONSENT CALENDAR ITEMS

Report of the Chairman, Board of Trustees

It has been a distinct honor for me to serve as the Chairman of your Board of Trustees this past year. It has made me appreciate even more our Association as I have had the opportunity to better see the scope and depth of the activities taking place on a daily basis on behalf of Kentucky physicians.

The commitment of your officers and the representation, dedication, and hard work of your Board members has certainly been demonstrated this year, and I thank each of them for their assistance throughout the year and for the energies they have expended on behalf of our profession. To the members who served on committees, to those who accepted special assignments, to

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

the members of the House of Delegates who set our policy after much research through reports and recommendations, I express my deepest gratitude.

This has been an extremely busy year, often frustrating by the actions of outside forces, but rewarding by observing your colleagues uniting together to seek resolutions to problems and otherwise plan for future directions. This was a legislative year which demanded an inordinate amount of time, and we had a very successful session from medicine's viewpoint. This, in my opinion, would never have occurred without the guidance of our Legislative Chairman, Doctor Carl Cooper, and the outstanding efforts of our staff, the Legislative Key Men, and the membership across the state who responded to our pleas for help. I caution you, however, that we cannot afford to rest on our laurels. The cost of health care has every segment of our population concerned, and we must continue to make progress in providing quality care at affordable prices or we will lose our battles in the Legislature and in Congress. More than ever in our history, the profession in Kentucky needs to be totally united through KMA, and involved individually and collectively with our electorate.

Health care access occupied many days of Board members' time this year. A committee organized in the Fayette County area soon began working with State Government and immediately had statewide implications. KMA became involved, had two ad hoc Committees work on this matter, and many details have presented themselves. I will not elaborate in my report but will direct your attention to Special Report A which includes the Resolution the House of Delegates will act upon along with other reports and background material. I urge you to read it carefully and feel it should be understood fully by each Delegate.

The environment we live in today has mandated that KMA be involved in many more activities than at any time in our history. I feel that KMA is one of the most important assets we have as physicians. Our professional life is affected daily by the positive efforts of members volunteering their time working day in and day out in concert with our staff.

Some years back, the House of Delegates asked that KMA take a bold approach to providing even more benefits and services to our membership. Subsequently, the Kentucky Medical Insurance Company (KMIC) was established and it quickly became the largest professional liability insurance carrier in the state. KMA now wholly owns KMA Physicians Services, Inc., a holding company, which currently has two subsidiary corpora-

tions, the KMA Insurance Agency, Inc., and Kentucky Medical Management & Computer Operations, Inc. The KMA Physicians Financial Services, a Federal Credit Union was organized in 1983 and is a full-service financial organization for the physicians of Kentucky who are members of KMA, their families, employees and corporations. A member of KMA has much to gain, intangibly as well as tangibly, by taking advantage of the many services that are available to us.

The Board of Trustees directs the implementations of the House of Delegates' activities, and much time was spent to attempt to bring every action to a desired conclusion. While the ultimate goal cannot always be achieved, the effort toward it never subsides. As an example, Resolution M from last year entitled "Medicare/Medicaid Hospital Preauthorization Program" generated time and effort on a continuing basis since last September. We have held meetings with KPRO on approximately a monthly basis, have corresponded with organizations and groups within and outside of Kentucky, and have communicated with our Congressional delegation and with governmental agencies, as well as have met with representatives of the Health Care Financing Administration (HCFA).

KMA introduced a resolution into the AMA House of Delegates and has taken every action that seemed logically indicated, but without success of removing preauthorization. Hopefully, additional discussions will offer us an opportunity to report more details when we are convened for the Annual Session.

The reports of the House of Delegates will speak to the involvement of your Association in today's world. The following summary of Board meetings will give you an idea of the number and scope of issues considered by your Board. Complete Minutes of all Board of Trustees and Executive Committee meetings will be provided to Reference Committee No. 1.

Each year a report on the Legal Trust Fund is included in the Chairman's report. At the present time, there is \$73,128.72 in the Fund. There were no expenditures from the Fund during the 1983-84 Associational year.

SUMMARY OF BOARD MEETINGS

First Meeting, September 22, 1983

Acting as Temporary Chairman, KMA Secretary-Treasurer S. Randolph Scheen, M.D., introduced the newly elected members of the Board and the new officers: Charles C. Smith, Jr., M.D., Louisville, President-Elect; Wally O. Montgomery, M.D., Paducah, Vice

HOUSE OF DELEGATES

President; Peter C. Campbell, Jr., M.D., Louisville, Speaker, House of Delegates; Thomas L. Heavern, M.D., Highland Heights, Vice Speaker; Donald C. Barton, M.D., Corbin, Delegate to the AMA; Dwight L. Blackburn, M.D., Berea, Delegate to the AMA; Russell L. Travis, M.D., Lexington, Alternate Delegate to the AMA; Harold L. Bushey, M.D., Barbourville, Alternate Delegate to the AMA; and John D. Noonan, M.D., Paducah, Trustee, First District.

The Board then elected the Executive Committee members to serve with the President, President-Elect, Vice President, and Secretary-Treasurer for the 1983-84 Associational year. Donald C. Barton, M.D., Corbin, was appointed Chairman of the Board; and Richard F. Hench, M.D., Lexington, was appointed Vice Chairman. Nelson B. Rue, M.D., Bowling Green, and Thomas R. Taylor, M.D., Elizabethtown, were also named to the Executive Committee as Trustees at Large.

The following were appointed to the KEMPAC Board: K. Thomas Reichard, M.D., Louisville; Walter Zukof, M.D., Louisville; Harold L. Bushey, M.D., Barbourville; Carmel Wallace, M.D., Corbin; Paul Lett, M.D., Ashland; Gerry Montgomery, Paducah; and Sara Gail Travis, Lexington.

The stock of KMA Physicians Services, Inc. (holding company) was voted for election of the following to its Board of Directors: James B. Holloway, Jr., M.D., Lexington; Charles C. Smith, Jr., M.D., Louisville; Wally O. Montgomery, M.D., Paducah; S. Randolph Scheen, M.D., Louisville; Donald C. Barton, M.D., Corbin; Richard F. Hench, M.D., Lexington; Nelson B. Rue, M.D., Bowling Green; and Thomas R. Taylor, M.D., Elizabethtown.

The KMA Physicians Services Board was then authorized and directed to elect the nine members of the KMA Insurance Agency, Inc. Board of Directors at a meeting following adjournment of the KMA Board session.

The Board reviewed the Executive Committee's recommendations for committee personnel, made appropriate changes and additions, and approved committee composition for the 1983-84 Associational year.

A decision was made to hold the 1984 KMA Annual Meeting in Lexington, and staff was asked to select the headquarters hotel based on negotiations being conducted.

Second Meeting, December 13-14, 1983

The KMA Board of Trustees met in regular session at the KMA Headquarters Building on December 13-

14, 1983. President Holloway related events that had occurred in meetings he had attended since becoming President.

S. Randolph Scheen, M.D., Secretary-Treasurer, gave a brief synopsis of Headquarters activity since the last Board meeting. He reported that excluding special members and students, KMA has 4,059 members. Routine reports were also given by representatives of the Kentucky State Board of Medical Licensure, the Kentucky Peer Review Organization, the KMA Insurance Agency, and the Kentucky Medical Insurance Company.

Following a report by the Commissioner of the Bureau for Health Services, the Board referred consideration of a proposed Center for Health Research and Center for Health Promotion to the Committee on Health Planning and Committee on Community and Rural Health, respectively. The Board recommended to the Auxiliary that it develop an Associate Membership category for spouses of non-KMA members, and referred to the Advisory Committee to the Auxiliary consideration of dual KMA/Auxiliary dues billing.

The Board concurred with action taken by the Board of KMA Physicians Services, Inc. (holding company) to capitalize Kentucky Medical Management & Computer Operations, authorized by the 1983 KMA House of Delegates. The Board also endorsed KMA's active participation in the Prescription Abuse Drug Data Synthesis (PADS) Program, to the extent of committing staff involvement for up to four months. The goal of the PADS Program is to identify the sources of diversion of prescription drugs.

The Board authorized expenditures of up to \$6,500 for the campaign of Fred C. Rainey, M.D., Elizabethtown, in his race for AMA Trustee, and voted to submit the name of David B. Stevens, M.D., Lexington, to the AMA for appointment to the Council on Long-Range Planning. President Holloway presented a plaque to Doctor Stevens in appreciation for his 18 years of service as a member of the Kentucky Delegation to the AMA, as Doctor Stevens had declined to seek reelection.

Chairman Barton appointed a subcommittee to study a response to a health report submitted by a University of Kentucky affiliated Health Care Access Committee. The Board approved an increase in members' Blue Cross and Blue Shield low option coverage, and selected nominees to the Kentucky Health Facilities and Health Services Certificate of Need and Licensure Board and the Medical Laboratory Advisory Committee.

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

The next meeting of the Board was set for April 11-12, 1984.

Third Meeting, April 11-12, 1984

The KMA Board of Trustees met in regular session on Wednesday and Thursday, April 11 and 12, 1984. Donald C. Barton, M.D., Chairman, called for reports of the President; Secretary-Treasurer; President, Auxiliary to KMA; Kentucky State Board of Medical Licensure; Senior Delegate to AMA; KPRO President; and Commissioner for Health Services.

Additionally, status reports were given by representatives of KMA-owned or affiliated companies: KMA Physicians Services, Inc.; KMA Insurance Agency, Inc.; Kentucky Medical Management and Computer Operations; and KMA Physicians Financial Services, a Federal Credit Union.

The Board also heard reports from Lee C. Hess, M.D., KMA's representative to the AMA Health Policy Agenda; and Fred C. Compton, Vice President of Blue Cross and Blue Shield, regarding the BCBS PACE Program.

The Board members selected nominees for the Governor-appointed Kentucky State Board of Medical Licensure and Kentucky Cancer Commission. They also appointed Phyllis Yates, Hebron, to the KEMPAC Board; and Dorothy Rush, Louisville, to the McDowell House Board of Managers; in addition to submitting the name of Lee C. Hess, M.D., Florence, to the AMA for consideration of appointment to its Ad Hoc Committee on Foreign Medical Graduates.

The KMA Secretary-Treasurer was directed to vote the shares of Class B Common Stock owned by KMA for nine directors of the Kentucky Medical Insurance Company at the KMIC Annual Stockholders meeting on April 12.

The Board adopted a Budget Summary proposed for the 1984-85 Associational year, and endorsed voluntary advertising guidelines the Judicial Council had developed for distribution to the membership.

The KMA Board members also endorsed the American Physicians Life Pension Plan program, and authorized the KMA Insurance Agency, Inc. Board of Directors to finalize KMA endorsement of insurance products as changes seem necessary.

The Board spent considerable time reviewing the report of the KMA Ad Hoc Committee to Develop a Tentative Response to the Health Care Access Report and referred the report to the House of Delegates for consideration in September. A Resolution was adopted encouraging a voluntary freeze on physician fees.

December 1984

The next meeting was set for August 8-9, 1984, in Louisville.

Fourth Meeting, August 8-9, 1984

The fourth regular session of the Board of Trustees was held on Wednesday and Thursday, August 8 and 9, 1984. Customary reports were given by the President, Secretary-Treasurer, Senior Delegate to the AMA, and Auxiliary President. Also appearing before the Board for presentations were the Presidents of KPRO and the Board of Medical Licensure.

The Chairman then reported on KMA's holding company, KMA Physicians Services, Inc., followed by reports of its subsidiaries, the KMA Insurance Agency, Inc. and Kentucky Medical Management & Computer Operations, Inc. The President of KMA Physicians Financial Services, a Federal Credit Union then presented an up-to-date status on the credit union's activities. It was reported that the Board of Medical Licensure would vacate KMA's headquarters building by June 30, 1985, and that the Prescription Abuse Drug Synthesis (PADS) Program may not be implemented in Kentucky.

Resolutions were passed by the Board of Trustees to be submitted to the House of Delegates on the subjects of establishing a Resident Physician Section, Associate Member dues, Board membership of Alternate Delegates to the AMA, a Medical Staff Section, a KMA Benevolent Fund, and a Health Care Access Hotline/Referral System. Nominations of KMA members to serve on Governor-appointed committees were also finalized.

The Board voted \$20,000 from the KMA Legal Trust Fund to assist the Jefferson County Chapter of the Kentucky Academy of Family Physicians in a lawsuit against urgent care centers. A detailed report was given on the Health Care Access Committee as well as on the activities of KMA committees.

The Board members then directed their attention to all committee reports being presented to the House of Delegates and took action as indicated. Final plans for the 1984 Annual Meeting were then discussed.

The next meeting was set for Sunday, September 16, 1984, in Lexington.

EXECUTIVE COMMITTEE

The Executive Committee held five meetings during the Associational year to fulfill its role of conducting the Association's business on a day-to-day basis and acting for the Board of Trustees between meetings of the Board. This is a hardworking group whose members give up many days in conducting the affairs of the As-

HOUSE OF DELEGATES

sociation and deserve much praise. The Board of Trustees elects the Executive Committee annually which consists of four Trustees (two of whom serve as Chairman and Vice Chairman), the President, President-Elect, Vice President, and Secretary-Treasurer.

Four of the above members serve as the Quick Action Committee and meet frequently to make decisions of an urgent nature. They were especially faithful during this legislative year by meeting almost on a weekly basis in Frankfort with the State Legislative Chairman to direct our legislative program. They are the President, President-Elect, Chairman of the Board, and Secretary-Treasurer.

AD HOC COMMITTEES

The Board appointed three special ad hoc committees this year: the Ad Hoc Committee on a KMA Medical Staff Section; the Ad Hoc Committee to Develop a Response to the Tentative Report of the Health Care Access Committee; and the Ad Hoc Operating Committee to study the Hotline/Referral System.

The Ad Hoc Committee on a KMA Medical Staff Section, chaired by John Perrine, M.D., dealt expeditiously with the charge established for it by Resolution F (1983 KMA House of Delegates). This Ad Hoc Committee Report was acted upon favorably by the Board of Trustees and has been distributed to the members of the House of Delegates. Resolution E, introduced by the Board of Trustees, represents the product of the Ad Hoc Committee and calls for the establishment of a Hospital Medical Staff Section within KMA.

Health care access required much attention during the past 12 months, and most of the Board's groundwork was accomplished by the Ad Hoc Committee to Develop a Response to the Tentative Report of the Health Care Access Committee and the Ad Hoc Operating Committee to Study the Hotline/Referral System. These committees, chaired by Doctors Thomas Heavern and Russell Travis, worked extremely hard throughout the year. Their labors culminated in two separate reports and a Resolution. For the convenience of the Delegates, it seemed indicated to keep these together, and for that reason you have Special Report A which includes the Resolution, the reports on the general subject of health care access, and recommendations for KMA involvement. We urge the Delegates to read this material and to hear a full discussion of it at the meeting of Reference Committee No. 1. Additionally, considerable information was sent to all KMA members in early August.

Once again, I want to thank the staff and all of my colleagues who have assisted me in my duties this year.

Donald C. Barton, M.D.
Chairman

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed the Report of the Chairman, Board of Trustees. A correction needs to be made in the report, as given by the Chairman at the first meeting of the House, that an expenditure of \$3,500 for legal fees regarding the Citicare Program was expended from the Legal Trust Fund during the 1983-84 Associational year.

The Committee recommends that this Report be filed.

Resolution A Board of Trustees Hotline/Referral System

WHEREAS, the Tentative Report of the Health Care Access Committee was provided to the Kentucky Medical Association Board of Trustees in December, 1983, and

WHEREAS, the Board of Trustees appointed an Ad Hoc Committee of Board members to do an indepth study of the Report, and

WHEREAS, the Ad Hoc Committee held three separate meetings for a total of 15 ½ hours to discuss the Tentative Report of the Health Care Access Committee, and

WHEREAS, as a result of the Ad Hoc Committee's Report, the Board of Trustees feels that the recommendations contained therein (and which are attached to this Resolution) merit further discussion by the House of Delegates, therefore be it

RESOLVED, that the Kentucky Medical Association commit to an initial one-year period of hotline operation with the following conditions:

1. In an effort to determine whether or not there is a problem of access to health care and to assure that the needs of the people of Kentucky are met, the hotline/referral system will be set up on a one-year trial basis with assessment of the value of the program beginning approximately six months after its onset. A decision to either discontinue the program or extend it beyond the one year will be made by the KMA Board of Trustees;

2. Brereton C. Jones, Chairman of the Health Care Access Committee, will finance the cost of a

HOUSE OF DELEGATES

statewide toll free inbound and outbound telephone line and one person to staff it on a 40 hour per week basis. He will also assume full financial responsibility for the advertising budget for a period of one year;

KMA shall appropriately participate in the program through an in-kind contribution in the form of space; telephone equipment; supplies; furniture; computer time, if necessary; postage and KMA staff supervision;

3. Any and all advertising of the program will be under the control and approval of the Kentucky Medical Association;

4. The operation of the hotline/referral system will be under the complete control of the Kentucky Medical Association under these general guidelines:

a. The hotline will provide referral services for indigent patients unable to find a physician for nonemergency care only; emergency cases will be referred to the nearest hospital;

b. Calls will be received on a statewide toll free number at the KMA Headquarters Office. The patient calling will be referred to the Office of the Cabinet for Human Resources in his or her county for determination of financial eligibility to participate in Medicaid, other financial assistance programs or in the KMA program. Upon determination of eligibility for the program, the patient will be referred to a participating physician; the specific mechanics of the referral system to be finalized by the Operating Committee;

c. To gather and evaluate data on the amount of care provided through this system, a postcard will be given to patients determined to be eligible at the CHR office to take to the physician's office. It will be filled out by the physician after the patient has been seen and returned to the KMA office. This information will be evaluated in an effort to determine the efficacy of the Kentucky Medicaid and other public assistance programs, in order to develop appropriate recommendations as to their modifications, as indicated;

5. The referral program will be based on the concept that anyone participating and agreeing to see patients referred by KMA will treat the patient at no charge. This will be for physician services only, and would not include hospitalization, phar-

maceuticals, injections, therapy or other costs which would not routinely be covered in an office visit;

6. Physician participation solicitation will begin as soon as possible after the House of Delegates approval, with a goal for the program to be in operation by January 1, 1985.

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed Special Report A of the Board of Trustees on Health Care Access and Resolution A, Hotline/Referral System, introduced by the Board of Trustees. A special session was held at 3:00 p.m. for the purpose of discussing Special Report A of the Board of Trustees, including Resolution A contained therein. Russell Travis, M.D., Chairman of the Ad Hoc Operating Committee, gave an overview of the reasons for the Special Report. Included in this overview was a slide presentation outlining what the Hotline program was expected to accomplish and how it would operate.

Several questions were asked about the Hotline program. One hour and 40 minutes was devoted to addressing these questions by knowledgeable people, such as Brereton C. Jones, Chairman of the Health Care Access Committee; Russell Travis, M.D.; President James B. Holloway, Jr., M.D.; Board Chairman Donald C. Barton, M.D.; President-Elect Charles Smith, M.D.; Vice Chairman of the Board Richard F. Hench, M.D.; Thomas L. Heavern, M.D., Chairman of the Ad Hoc Committee to Develop a Response to the Tentative Report of the Health Care Access Committee, and Nelson Rue, M.D., a member of that Committee. All questions may not have been fully considered as the program is still under development. However, Reference Committee No. 1 feels that sufficient work has been done to warrant KMA's involvement in the phase of the Health Care Access Program proposed by Special Report A.

The Committee recommends the adoption of Resolution A. The Committee also recommends that the remainder of the Special Report A of the Board of Trustees, entitled "Health Care Access," be filed.

(The motion to file the remainder of Special Report A was seconded from the floor and carried. The House then considered the motion to adopt Resolution A.)

Frank R. Pitzer, M.D., Delegate from Christian

HOUSE OF DELEGATES

County, was recognized and made a motion that the First Resolved, subparagraph (1) of Resolution A be amended to state the . . . "A decision to either discontinue the program or extend it beyond one year will be made by the KMA **House of Delegates**," rather than by the KMA Board of Trustees as stated in Resolution A. The motion was seconded and carried.

Discussion ensued regarding the possible need for a special session of the KMA House of Delegates. Harold L. Bushey, M.D., a member of the Board of Trustees, pointed out that the Resolution called for "assessment of the value of the program beginning approximately six months after its onset," which would coincide with the 1985 session of the House of Delegates. It was taken by consent that a special session of the House to decide the future of the Hotline/Referral System would not be required.

Nelson B. Rue, M.D., a member of the Board of Trustees, was recognized and urged the House members to follow in the spirit of AMA President Boyle's earlier presentation to recognize where the duty of a physician lies and to unanimously adopt Resolution A as amended.

On a call for the question, Resolution A as amended was unanimously adopted.

Special Report A of the Board Of Trustees Health Care Access

Delegates:

Attached are four major documents regarding health care access. **YOU WILL BE ASKED TO TAKE ACTION ONLY ON RESOLUTION A.** However, the background material will be useful to you in your deliberation of Resolution A.

These documents are.

1. THE TENTATIVE REPORT OF THE HEALTH CARE ACCESS COMMITTEE AND AN ITEM BY ITEM RESPONSE BY THE KMA BOARD which was recommended by the Ad Hoc Committee to De-

velop a Response to the Tentative Report of the Health Care Access Committee.

2. THE REPORT OF THE KMA AD HOC COMMITTEE TO DEVELOP A RESPONSE TO THE TENTATIVE REPORT OF THE HEALTH CARE ACCESS COMMITTEE which discusses operational aspects of the hotline/referral system. That report was presented to and unanimously approved by the Board of Trustees on April 12, 1984. The report called for the Committee's recommendations to be brought forward as:
3. RESOLUTION A. Resolution A is in response to actions recommended in the Tentative Report of the Health Care Access Committee.
4. The Board appointed an AD HOC OPERATING COMMITTEE and asked it to develop operating guidelines to be implemented pending House of Delegates' approval of the concept. The committee report is provided to acquaint you with how the program will operate should it receive the endorsement of the House of Delegates.

Introduction

The Kentucky Medical Association has been asked to respond to the Report entitled, "Health Care Access Committee, Tentative Report." The Kentucky Medical Association appreciates this opportunity to comment.

In the introduction to the Report, the Committee states that it was appointed on May 10, 1983 and asked to identify issues and focus on solutions to a medically indigent patient care crisis developing in Central and Eastern Kentucky. The Committee was also asked to recommend policies and procedures to address the problems of access to care with particular emphasis on funding cost effectiveness, University of Kentucky education programs and University of Kentucky Hospital; and to help focus public attention on issues and actions needed to deal with the problem of access.

It is not made clear in the Report what organization or agency appointed the Committee or what authority they operate under. The Report does not clarify what it means by "access," although the term is used throughout the Report.

Brereton C. Jones, Chairman of the Health Care Access Committee, met with us and stated that the Committee was appointed by the University of Kentucky, initially to address what was then viewed as a local problem. The KMA Ad Hoc Committee To Develop A Response To The Tentative Report feels there should

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

have been more physicians on the Committee, but notes that members of our Committee have been invited to participate in the final meetings of the Health Care Access Committee to comment on the report during the process of its finalization.

The membership of the Health Care Access Committee is comprised, for the most part, of individuals from the Fayette County area. This is understandable, given the Committee's charge. While the focus of the Committee's study remained on Fayette County and Southeastern Kentucky, the Committee gained authority through the press and expanded its recommendations, based on local issues, statewide. We are, as a result, concerned with many of the Committee's recommendations for wide ranging actions that will have long term implications which are based on limited information.

A considerable part of the Committee's report is based on anecdotes reported to the Committee. While we would disagree with much of the report's overview and summary of presentations, we have chosen to direct our comments, for the most part, to the 26 recommendations developed by the Health Care Access Committee.

There are, however, three points we would make prior to our response to the recommendations.

In its discussion of the Medicaid program, the Access Committee notes that the decision to cover or not cover optional services in Kentucky has been made by the Cabinet for Human Resources and the Governor. The Report also states that the Legislature has limited its involvement in this area to reviewing and acting upon budget requests. It would seem that if the Governor and the Cabinet for Human Resources are authorized to add services under the Medicaid program, they should be required to adequately fund them. If, as is the case, they do not have the authority to fund services, it seems reasonable that there be some limit to their ability to add services.

Secondly, the Report suggests that the health care needs of the indigent are the responsibility of society as a whole and the special responsibility of the health care system. We would agree that they are the responsibility of society as a whole. We agree that the health needs of the indigent must be met. However, providers of care have a concomitant responsibility to the other patients they serve. It will do little to help society as a whole if services are provided to those who are unable to pay for them to the extent that they jeopardize access to those services by other members of the community. Recently, the adult burn unit at NKC Hospital was

closed for this very reason. The adult indigent population had used the unit to the point that its availability to injured children was in jeopardy.

Finally, if, in fact, society as a whole is responsible for the care of its less fortunate members, society as a whole should have the opportunity to underwrite such care through a specific tax.

IV. TENTATIVE RECOMMENDATIONS

Maintaining Access

A. Physicians

1. We commend the Kentucky Medical Association for its initiative in passing a resolution addressing the problems of access to health care, and recommend that the Kentucky Medical Association proceed with the implementation of a state-wide, toll-free hot line and referral system.

Rationale: We believe many patients don't know how to obtain access to the health care system and that a mechanism is needed to respond to questions, provide advice on health care access, and manage referrals from the Cabinet for Human Resources as set forth in recommendation number seven. Under this recommendation, a registry of hot-line activity would be maintained to provide valuable information on the nature, frequency and geographic location of access problems. We also believe many physicians want to serve those needing care but want a system to facilitate the referral of such patients. Under this recommendation, patients would be referred by the Cabinet for Human Resources, as set forth in recommendation number seven, to the Kentucky Medical Association for referral to physicians who have volunteered to accept such referral to physicians who have volunteered to accept such referrals and to charge such patients based only on their ability to pay.

The Kentucky Medical Association, after study of the proposal, is willing to commit to an initial one year period of hotline operation with the following conditions:

Brereton C. Jones will finance the hotline and one person to staff it on a

forty hour per week basis and will assume full responsibility for the advertising budget for a period of one year.

Any and all advertising of the program must be under the control and approval of the Kentucky Medical Association.

The operation of the hotline/referral system will be under the complete control of the Kentucky Medical Association.

2. We commend those Kentucky physicians and other health professionals who provide significant levels of unreimbursed care to the medically needy, and recommend that the Kentucky Medical Association vigorously pursue the policy its House of Delegates adopted in September of 1983 which is intended to encourage its members to provide services to the medically indigent.

Rationale: We believe more extensive participation by those health professionals who choose to seriously limit or not participate in the care of the medically indigent is required if access to health care is to be improved.

The Kentucky Medical Association likewise commends its members and other physicians who continue to provide unreimbursed care to the medically needy.

In September, 1983, the Kentucky Medical Association adopted a resolution which in part states:

“RESOLVED, that KMA pursue all reasonable channels to promote adequate financing of the Medicaid Program for the provision of vital primary medical services, and be it further

RESOLVED, that KMA pursue all reasonable channels to preserve and promote full funding for primary medical services prior to expansion through new or nonmedical services, and be it further

RESOLVED, that KMA can no longer support the present operation of the Kentucky Medical Assistance Program, nor can it encourage its members to participate in a program which is clearly detrimental to the medical welfare of the indigent population of the Commonwealth, and be it further

RESOLVED, that KMA urge each member to consider his or her relationship with

the Medicaid program and determine the individual method of fulfilling the medical care obligation to the indigent, and be it further

RESOLVED, that the Kentucky Medical Association assist physicians in educating patients and citizens about the problems of the Kentucky Medical Assistance Program.”

B. Hospitals

3. We recommend that all hospitals participate in a voluntary program under criteria established by the Cabinet for Human Resources to provide a “fair share” of care to indigent and Medicaid patients, with conversion to a mandatory program as a condition of licensure if the voluntary approach doesn’t result in equitable sharing of this responsibility.

Rationale: We believe that with the implementation of the planned prospective reimbursement system and the likely elimination of opportunities to shift costs to other categories of patients, any hospital with significantly more than a “fair share” of indigent and Medicaid patients will be at a serious competitive disadvantage, and the interests of these patients and the quality of health care across the state can best be served by spreading the responsibility to all hospitals. The objective of this recommendation is to maintain existing levels of care, but to have all providers share in the responsibility.

“Fair share” is defined as the percentage of revenue for indigent care and patient days for Medicaid which approximates the **service area average** that each of these categories represents of the total patient days. The respective percentages **statewide** in 1982 were 2.6% indigent and 8.4% Medicaid (actual averages will be computed for each **service area**). The targets would be set for hospitals **as a group** to maintain existing levels of care to indigent and Medicaid patients. Medicaid referrals “out of region” would require prior approval when the care is available in the region.

While the Kentucky Medical Association feels that each institution and individual practitioner should provide a “just portion” of reimbursed care, it cannot support the concept of a mandated “fair share.” The responsibility for the financial burden for the indigent

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

and medically indigent does not fall exclusively to institutions and individual providers of care.

The Report of the Subcommittee on Health Care Financing And Cost Containment to the Interim Joint Committee on Health and Welfare, dated November 16, 1983, recommends:

“Medicaid and Medicare pay the full reasonable costs of necessary care for their beneficiaries.”

Continued sub-rosa cost shifts whether they be 2.6% or 26% are unfair and constitute taxation without representation. State government must recognize its obligations in this area.

More practical than mandated “fair shares” would be adequate and timely reimbursement by the state for all Medicaid and Medically indigent services. Hospitals and individual practitioners could then be attracted to provide this care and charged with development of prospective methods to control and reduce costs.

4. We recommend that with the implementation of recommendations numbers three and twenty-three, teaching hospitals at the University of Kentucky and the University of Louisville continue with their stated objectives to serve more than their “fair share” of indigent and Medicaid patients.

Rationale: The University of Kentucky Hospital has stated its objective to maintain indigent care at approximately 5% of revenues and Medicaid at approximately 15% of total patient days. The University of Louisville, the city of Louisville, Jefferson County, and Humana have agreed on a program which will accommodate significantly more than a “fair share” of Jefferson County residents. Statewide, a “fair share” of indigent care and Medicaid patient days would be approximately 2.6% and 8.4%, respectively.

According to Senator Henry Lackey, Chairman of the Subcommittee on Health Care Financing And Cost Containment, in his Report of November 16, 1983, if the Kentucky Medical Assistance program would pay the full reasonable costs of necessary care for their beneficiaries, it would not be necessary for any institution to serve more than its “fair share.”

C. County Health Departments

5. We recommend that the local health departments expand their medical care-giving capabilities in a cost effective manner, or, when

appropriate, contract with others to provide care to indigent persons including Medicaid patients who cannot gain access to other sources of primary and preventative care.

Rationale: We believe that the local health departments will need to continue existing services and even to expand their services if all needs are to be met, but they will need to operate with minimum overhead if such programs are to be cost effective.

The Kentucky Medical Association recommends that #5 above be amended as follows:

We recommend that the local health departments **direct** their medical care-giving capabilities in a cost effective manner, or, when appropriate, contract with others to provide care to indigent persons including Medicaid patients who cannot gain access to other sources of primary and preventative care.

Rationale: We believe that the local health departments will need to continue existing services and even to expand their services **to indigents only** if all needs are to be met, but they will need to operate with minimum overhead if such programs are to be cost effective.

6. We recommend that health departments seek federally funded grants for the expansion of indigent medical care.

Rationale: Such funds have already been obtained for this purpose by some health departments.

The Kentucky Medical Association endorses continued use of available Federal funds by County Health Departments for provision of care to the medically indigent.

D. State Agencies

7. We recommend that the Kentucky Cabinet for Human Resources, utilizing existing offices in Kentucky's 120 counties, establish a system to refer patients not meeting the criteria for existing health programs to a referral system to be developed by the Kentucky Medical Association.

Rationale: We believe the existing offices of the Cabinet for Human Resources which are located in each of Kentucky's 120 counties

HOUSE OF DELEGATES

provide the most convenient and least expensive approach to assessment of financial need.

The Kentucky Medical Association is willing to participate in a referral program using existing offices of the Cabinet for Human Resources to make financial need determinations. Adequate training of personnel and prompt determination of financial eligibility will be essential to the satisfactory operation of this program.

8. We recommend that the Cabinet for Human Resources explore the feasibility of redefining the Medicaid Program so that it includes the medically indigent patient as well.

Rationale: There are many citizens who do not meet the present criteria for indigency, but who are medically indigent due to unemployment or other factors. Federal law states that the needs of the medically indigent can be met through an optional program in the Medicaid system at an eligible reimbursement rate of fifty percent.

The Kentucky Medical Association finds no problem with #8 above.

E. Other

9. We recommend that the voluntary organizations involved in medical care establish a board to coordinate their activities, reduce any duplication of effort, and disseminate information about their services.

Rationale: We believe some further coordination would be helpful in publicizing the services of these organizations and in the coordination of services.

The Kentucky Medical Association recommends that this proposal may have some validity, but it is not clear exactly which organizations would join to coordinate activity. This seems like one more organization which will spend rather than conserve resources.

FINANCING HEALTH CARE AND REDUCTION OF COSTS

A. Physicians

10. We recommend that physicians stress more preventative medicine.

Rationale: We believe the practice of prev-

entative medicine is a means for reducing overall health care costs.

The Kentucky Medical Association finds no problem with #10 above.

11. We recommend that physicians ordering hospital services or tests recognize the importance of their use in the care of the patient rather than the fact that they might be just routine procedures.

Rationale: We believe there is the possibility of reducing the number of tests and services without compromising the quality of care.

The Kentucky Medical Association feels that the above recommendation #11 is inappropriate because it suggests that physicians order services or tests as routine rather than only when necessary. While we might agree in principle that this should always be the case, we disagree with the statement as it presumes that physicians now only order tests because they are routine and not because they are necessary to ascertain the exact nature of the illness in a patient.

The Tentative Report of the Health Care Access Committee also states that the current system of medical and professional continuing education does not adequately prepare physicians and other health care practitioners to be conscious of cost and to assume responsibility for cost minimization. The Kentucky Medical Association disagrees. Physicians are more cost conscious today than a few years ago, and it has been reported that the University of Kentucky College of Medicine has added courses on the cost of health care in their medical school curriculum, as have other medical schools around the country. While a physician has an obligation to restrain runaway costs, he has a higher obligation to provide high quality care and appropriate tests and treatments even if they be costly.

B. Hospitals

12. We recommend that the hospitals establish a mechanism to coordinate their efforts in providing complex medical care and through such efforts and through internal operational changes achieve a more expeditious use of existing facilities and services.

Rationale: We believe that through such coordination some duplication of services could be eliminated and produce a more cost effective concentration and utilization of services. In some cities such as Rochester, New York,

HOUSE OF DELEGATES

the hospitals have joined together to create a formal mechanism for the coordination of services.

The Kentucky Medical Association recommends that effective and efficient use of complex hospital services is desirable on a voluntary basis, but indiscriminate restriction of services or arbitrary limitation of some procedures to a very small number of institutions may interfere with provision of the highest quality of medical services and convenience to the largest number of patients.

13. We recommend that financial incentives be provided for decreasing the utilization of medical facilities when they are not needed.

Rationale: Many patients want to remain in the hospital when their conditions would permit them to be treated at home. Incentives to providers and patients would decrease utilization and ultimately reduce health care costs.

The Kentucky Medical Association has no problem with recommendation #13 above.

C. State Agencies

14. We recommend the continued emphasis by the Kentucky Cabinet for Human Resources on the development of programs of health education and prevention (with the Department of Education), primary care centers, and other forms of non-institutional care, and further recommend legislative study to facilitate such initiatives.

Rationale: The Kentucky Cabinet for Human Resources has initiated a program of cost containment which, among other things, emphasizes the role of health education, early treatment and prevention, and out-of-hospital care. It is our feeling that these efforts should be continued and expanded to include roles for other agencies (e.g., the Department of Education in health education and prevention). We believe such efforts will ultimately reduce overall health care costs.

The Kentucky Medical Association supports study of innovative measures to improve medical care, however the KMA opposes any expansion of the services offered by the Kentucky Cabinet for Human Resources until primary medical services to medicaid patients are fully

funded. (See KMA's response to recommendation #2 in this Report).

Further, the Kentucky Medical Association calls for a joint venture with the Cabinet for Human Resources, voluntary agencies and other health care providers to stress preventive care and changes in lifestyle to promote wellness.

15. We recommend that the Cabinet for Human Resources study the possibility of purchasing private health insurance for the indigent.

Rationale: We believe such a study should be undertaken to determine if it would be more cost effective than existing programs.

The Kentucky Medical Association has no objection to such a study as indicated above in recommendation #15.

16. We recommend that the Cabinet for Human Resources and the Department of Insurance study the possibility of establishing a risk-sharing pool for high-risk patients with all insurance carriers being required to participate equally.

Rationale: We believe some patients who could pay for health insurance must be treated as indigents when serious health problems arise because they can't obtain health insurance due to their medical history.

The Kentucky Medical Association recommends that the concept in #16 above does have some merit.

17. We recommend that a state-wide committee composed of members of the health care and legal professions be appointed by the Governor to study the problems of professional liability especially as they relate to the problems of treating indigent and Medicaid patients, and recommend necessary actions to lessen requirements for the practice of defensive medicine and reduce vulnerability to legal actions.

Rationale: We believe that health costs are increased by the costs of defending legal actions and by the practice of defensive medicine.

The Kentucky Medical Association has long stated the need for revision of the statutes governing professional liability. We are prepared for any serious discussion which might solve this serious problem.

18. We recommend that the Kentucky General As-

HOUSE OF DELEGATES

sembly study the possibility of either restructuring the Certificate of Need and Licensure Board to include a majority representation of consumers or replacing the Board with a full-time commission.

Rationale: We believe a change in composition and/or structure of that body might improve its effectiveness in controlling costs.

Members of the Kentucky Medical Association have served with distinction on the Certificate of Need Board since its inception. Any modification of the structure of this Board should be made with the greatest caution to assure competent professional input to the planning process.

19. We recommend that the Cabinet for Human Resources reassess the Kentucky Medicaid System in order to reduce administrative costs related to inefficient claims processing and inappropriate levels of cost shifting.

Rationale: We believe there may be opportunities for cost savings through simplification of the process and that such savings could be directed to the provision of health care.

The Kentucky Medical Association has suggested modification of the Medicaid program for more efficient operation in the past. Quoting part of a resolution adopted by the Kentucky Medical Association House of Delegates during a special called meeting on April 16, 1981:

“RESOLVED, that KMA urge the Secretary of the Department for Human Resources to accomplish the following objectives with regard to the operation of the Kentucky Medical Assistance Program.

1. Establish and maintain a balanced Medicaid budget.
2. To insure the continuance of good patient care, fund the mandated services at no less than current levels.
3. As funding is available, consider provision of those services optional to state determination on a priority basis.
4. Specifically address those reimbursement inequities that exist in relation to the various providers of services.”

The Kentucky Medical Association continues to support this position.

20. We recommend that the Committee be prepared to propose additional funding for health

care if, after the implementation of these recommendations, the data collected from the hotline, the referral system, the “fair share” program, or any other sources indicates the need for additional funding; and that the Committee immediately explore the feasibility of alternative mechanisms for providing new funds to the State Medicaid Program.

Rationale: We believe it is very difficult to assess the actual unmet need for health care, and feel that the Committee should be prepared to supplement its recommendations if the need is demonstrated. The Committee can immediately begin to explore mechanisms for providing such funds in case they are needed.

The Kentucky Medical Association has encouraged provision of adequate funding of medical care for many years. We support the exploration of alternate mechanisms for providing new funds. We anticipate that the hotline/referral system of the “fair share” program will further document a need which to us is obvious.

D. Other

21. We recommend and encourage employers to provide group health insurance programs for their employees.

Rationale: We believe there would be less dependence on public programs for financing health care if such employer coverage was provided.

The Kentucky Medical Association strongly encourages development of voluntary employer sponsored group health insurance and urges maximum individual *voluntary* participation in such programs.

22. We recommend that financial incentives be provided rewarding people who utilize sound preventive medical principles.

Rationale: We believe such incentives could lead to overall savings. The Ohio Medicaid System has developed a program for infants through childhood that is reported to save approximately 30 million dollars.

The Kentucky Medical Association agrees with recommendation #22 above.

Maintaining Services and Quality

A. State Agencies

23. We recommend that the 14-day limit on Med-

HOUSE OF DELEGATES

icaid coverage for patients requiring special, designated tertiary (critical) care services be eliminated with a requirement that such patients be referred to level two facilities with continual coverage when tertiary services are no longer required, and we further recommend that all reimbursement programs adopt a severity of illness index system and reimburse for care on a basis that uses this system to cap the payments.

Rationale: We believe that with the implementation of the planned prospective reimbursement system and the likely elimination of opportunities to shift costs to other categories of patients, hospitals providing tertiary and other more costly services to Medicaid and other patients will be at a serious competitive disadvantage and will likely need to curtail services either to groups of patients or entirely unless they receive reimbursement commensurate with costs. We also believe that a proper environment for medical education in such tertiary care centers is enhanced by the provision of care to patients based only on their medical needs.

The Kentucky Medical Association recommends that the 14-day limit on indigent care is a good example of cost shifting. Studies have shown that indigent patients tend to be less healthy and require longer lengths of stay and more complex services, often reaching far beyond the 14 days of hospitalization that Medicaid will cover. It is doubtful that commercial organizations could continue to pay salaries and pay for the maintenance and overhead of a physical plant, but sell their product for one-third or less of what it costs them to produce it. However, that is what government is asking hospitals and other providers to do. The Kentucky Medical Association supports the recommendation of changing the fourteen day limit on Medicaid coverage with the requirement patients be referred to level II facilities when tertiary services are no longer required. We agree with the recommendation that DRG based prospective reimbursement programs adopt a degree of severity index system. The DRG system currently being implemented for Medicare does not have such a degree of severity index.

B. Others

24. We recommend that the Health Care Access

Committee continue in existence through December 31, 1984, in order to monitor progress in improving access to health care and the implementation of these recommendations.

Rationale: We feel an obligation as a committee to support efforts to implement these recommendations and to determine how effective they are in addressing the problems of health care access.

The Kentucky Medical Association believes that the Health Care Access Committee has highlighted many issues of importance. Continued exploration of these issues is indicated. In its desire to remain unprejudiced, the Health Care Access Committee has handicapped itself by stringent limitations upon physician membership. Additional expert physician opinion, not only in testimony, but in membership on the committee, is essential for our continued participation. More physicians representing the Kentucky Medical Association should be appointed.

The Kentucky Medical Association further recommends that recommendation #24 above be amended as follows:

We recommend that the Health Care Access Committee continue in existence through December 31, 1985, in order to monitor progress in improving access to health care and the implementation of these recommendations.

25. We recommend that a private foundation be created and supported by private contributions to serve as a clearinghouse for information on problems of access to health care, to speak in support of needed improvements to the system, and to evaluate the effectiveness and responsiveness of health care providers and related agencies with reference to voluntary efforts and related proposals contained in these recommendations and report regularly on participation, non-participation, and compliance.

Rationale: We believe that access to adequate health care is such a basic right that some organization that is not otherwise involved in the health care system is needed to provide continuous monitoring and analysis of problems of access.

The Kentucky Medical Association recommends that since there is at this time no proof of a wide spread

HOUSE OF DELEGATES

problem of access to adequate health care, it seems premature to build a private foundation with oversight obligations. It is hoped that the hotline will help clarify the problem of access to health care and the Kentucky Medical Association must have input to the Foundation in gathering and interpreting any data. Such input can only be achieved by adequately appointing KMA physician membership to the Foundation.

Foundation specifics need to be fully developed with KMA input before KMA can support the Foundation concept.

26. We recommend that the teaching programs for health professionals emphasize the dignity of the whole person by incorporating in their curriculums a strong human ethic, and further that institutions providing care utilize appropriate means (such as the adoption of behavioral standards) to retain this focus and to expand it to all groups of employees through employee orientation, in-service programs, patient feedback and continual monitoring.

Rationale: We believe that patients are sometimes treated with less than the degree of compassion that befits their needs as individuals.

The Kentucky Medical Association agrees with recommendation #26 above, but would recommend that the Rationale be deleted and replaced with the following:

Rationale: Illness is of itself debasing and dehumanizing. Enemas, catheters, gluteal injections, intravenous lines, and nasogastric tubes do little to promote a positive self-image. Into this milieu step physicians, nurses, aids, technicians, orderlies, janitors, food service personnel, and dozens of others with one goal—to minimize the pain and dehumanization of the patient. To a very large extent they are successful. To the extent they fall short, they seek improvement.

April 5, 1984

MEMORANDUM

TO: KMA Board of Trustees

**FROM: Thomas L. Heavern, M.D., Chairman
KMA Ad Hoc Committee To Develop
A Response To The Tentative Report
Of The Health Care Access Committee**

**RE: Presentation of Ad Hoc Committee's
Response to the Report**

The Ad Hoc Committee To Develop A Response To The Tentative Report Of The Health Care Access Committee met on February 9, 1984, February 23, 1984, and March 15, 1984, for a total of 15 ½ hours. The Committee received testimony from Brereton C. Jones, Chairman of the Health Care Access Committee, Doctor Donald Clapp, Doctor Peter Bosomworth, Doctor William Wood, Doctor Preston Nunnally and James Gooding, and considered in detail the Tentative Report of the Health Care Access Committee.

The Committee determined that the most critical matter for its consideration was a response to the 26 points entitled Tentative Recommendations in the Report of the Health Care Access Committee. Comments as necessary on each section were prepared and suggestions for alterations of the Tentative Recommendations were drawn up to be submitted at the pleasure of the Board of Trustees.

The Committee has phrased its response in the terms "The Kentucky Medical Association recommends" without seeking to presume approval by the Executive Committee or the Board of Trustees, but simply to put the report in a useable form.

The Committee has not attempted to comment concerning the philosophical statements included in Sections I, II & III of the Report.

It is recommended that the KMA Ad Hoc Committee To Develop A Response To The Tentative Report Of The Health Care Access Committee be terminated upon acceptance of this Report.

After considerable debate, the Committee recommends that the Kentucky Medical Association Executive Committee and the Kentucky Medical Association Board of Trustees submit a proposal for a hotline/re-

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

referral system to the Kentucky Medical Association House of Delegates for consideration at its September, 1984 meeting. The Resolution should be drawn to reflect the material included in this Report.

This hotline would provide referral services for indigent patients unable to find a physician for non-emergency care and would operate as follows:

Calls would come in on a state-wide toll free number at the KMA Headquarters Office. The person calling would be referred to the **office of the Cabinet For Human Resources** in his or her county for determination of financial eligibility to participate in **Medicaid or in the program**. Upon determination of eligibility for the program, the patient would be referred to a participating physician. Mechanics of how this would work need to be developed.

a. Some consideration should be given as to whether it would be better for KMA to operate the hotline/referral system or for the Kentucky Foundation for Medical Care to be the operating committee. If the program proves to be worthwhile and is continued past the one year commitment by Mr. Jones, funding sources will be necessary. The KPMC is able to request and receive contributions from various sources.

A postal card would be given to the patient at the CHR office to take with him to the physician's office. This would be filled out by the physician's office after the patient had been seen and returned to KMA for follow-up information on the patient and the system.

The referral program would be based on the concept that anyone participating and agreeing to see patients referred by KMA would treat the patient at no charge. This would be for physician services only and would not include hospitalization, pharmaceuticals, injections, therapy or other costs which would not routinely be covered in an office visit.

A method would be developed through this program that would gather and evaluate data as to the number of people served and the amount of free care given. This would be used at a later date in an effort to **evaluate whether** the state Medicaid program is lacking and **whether or not** a substantial number of indigents are covered by the program. Again, the details of gathering this in-

formation would be worked out by the operating committee as well as a timetable for the program. Members of the Ad Hoc Committee will be available to discuss these matters as indicated.

The Committee feels that cooperation is vital from both the hospitals in the state and the pharmacies. This in effect embraces the concept of fair share which has been endorsed by the KHA.

All publicity and statements concerning this referral system must emphasize that we are not in a position to handle emergency cases. Care to be rendered through this program would be non-emergency only.

The announcement of the implementation of this program must carry the notation that there is a feeling of some that the problem of access to care exists, but that problem has not been significantly documented or evaluated. In a cooperative effort to make that determination and to assure that the needs of the people of Kentucky are met, the Committee suggests that this program be on a one year trial basis with assessment of the value of the program beginning approximately six months after the onset. A decision to either discontinue the program at the end of the 12 months or extend it beyond that time should be made by the Association by the time the program has been operational for eleven months.

Any advertising of the program must be under the control and approval of the Kentucky Medical Association and any other groups that wish to participate. This would be done in a sense of a joint venture between the groups.

Brereton C. Jones has offered to finance the hotline and one person to staff it on a 40 hour per week basis and has also agreed to assume responsibility for the advertising budget for a period of one year. Jones feels the cost of advertising can be covered through donations either by advertising entities or from private donations.

James Gooding has indicated that training and operation of the financial screening may be provided for within the CHR with some budgetary adjustments.

The Committee recommends that KMA participate in the cost of the program in the form of an in kind contribution equal to approximately 1/2 of the cost of the project. This would be in the form of space, telephone equipment, supplies, furni-

HOUSE OF DELEGATES

ture, computer time, if necessary, postage and KMA staff supervision.

The Chairman wishes to express his thanks to the members of the Ad Hoc Committee, Ronald D. Hall, M.D., Pikeville, Bob M. DeWeese, M.D., Louisville, Russell L. Travis, M.D., Lexington, Harold L. Bushey, M.D., Barbourville, and Nelson B. Rue, M.D., Bowling Green, for their faithful attendance and valuable input and patience during these long meetings. The Chairman also wishes to thank William T. Applegate, Executive Director, and Robert E. Klinglesmith, Assistant Executive Director, who staffed the Committee, for their helpful words, advice and encouragement. This Report could not have been completed in such a short time without the exceptional stenographic skills of Martha Coombs, and we are highly indebted to her for her services.

Report of the Operating Committee for the Hotline/Referral System

Following the April action of the KMA Board of Trustees endorsing the concept of a hotline/referral system, the Operating Committee was appointed to work out details of such a system in cooperation with the Cabinet for Human Resources.

The Committee met on June 7, June 28, and July 26 with representatives of the CHR Department for Social Insurance and with Jones and Doctor Clapp.

In developing our recommendations, the Committee encountered a number of unforeseen problems which, for the sake of brevity, we will not elaborate on in this Report. What follows is a summary of the Committee's recommendations on how the Hotline/Referral System should work, eligibility requirements for participation and the specific role of KMA and the Cabinet for Human Resources in the program's operation.

The Operating Committee recommends that the name of the program be "Kentucky Physicians Care."

ELIGIBILITY CRITERIA

Eligibility will be determined for family units, with a family defined as the applicant, spouse and all children in the home under the age of 21. The only eligibility criteria will be income and resources and the client's statement will be accepted as verification of those items.

Income limits will be set at 100% of the Federal Poverty Index. Gross income of all family members, for

the month prior to application, will be considered. When earnings are from self-employment, adjusted gross will be utilized, that is, gross income less the cost of earnings. Income, both countable and excluded, will be computed utilizing a methodology used by the Cabinet for Human Resources in determining eligibility for the Heating Assistance Program. A copy of those instructions is attached (Attachment I) The poverty index is as follows:

Family Size	Monthly Income	Yearly Income	Medically Needy Income Limitations
1	\$415	\$ 4,980	2,300
2	\$560	\$ 6,720	2,700
3	\$705	\$ 8,480	3,200
4	\$850	\$10,200	3,900
5	\$995	\$11,940	4,600

For each additional member, add \$145

The Committee recommends that total liquid resource limits for the family be set at \$1,500. We further suggest that the value of non-liquid resources not be considered since they could not be readily converted to liquid resources to use to purchase medical care.

Local Department of Social Insurance offices will be responsible for keeping statistics on the number of approvals (including number of family members) and the number of denials. The Social Security Number of the applicant will be the identifying number for those eligible to participate in the program.

REFERRAL PROCESS

Interested individuals who call a toll free number at KMA will be advised to contact their local Department of Social Insurance office. It is anticipated that many persons will contact the Department of Social Insurance prior to calling KMA. In either instance, a case worker will make a determination of whether the client is eligible for the referral service. This determination will be made at the time the client goes to the local office unless the client does not know the information requested on the eligibility determination form. In such instances, the client will be requested to provide the information within seven days, otherwise, the case will be denied.

The application and eligibility determination form

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

will be on three-part NCR paper. (A copy of the application form is attached as Attachment II). One copy of the completed application form will be given to the client, one copy will be sent to KMA, and the original will be maintained in the local Department of Social Insurance office. If the applicant is determined eligible and indicates that a family member wishes to be referred to a doctor, the eligibility worker will contact the hotline number and will give identifying information on the eligible client. The client will then be mailed a hard copy document (A return postal card) with an authorization number which must be taken to the physician selected by KMA. It is to be made clear to the client that the card must be presented at the time the service is rendered in order to be seen under the program guidelines.

If the client does not request referral to a doctor, the eligibility worker will not call KMA, but will forward a copy of the application/determination form to the KMA Headquarters. If the eligible client requests referral at a later date and has not been previously seen by a physician, the return postal card will be sent to them at that time with the name of a participating physician in their area.

The duration of eligibility is recommended to be for a period of six months. Clients that need medical attention after that time must be recertified by the District Social Insurance Office. An authorization number will be required for each individual in a household requiring medical care and for each doctor visit made. Eligible clients may obtain authorization and referral by calling the hotline number. Individuals requiring emergency medical care will be advised to utilize local hospital emergency room services.

GENERAL PROGRAM GUIDELINES

Patients assigned to participating physicians must sign a waiver of liability prior to being seen by the physician. (Attachment III)

Physicians participating in the program will be asked to sign a statement that he or she will see the patient free. (Attachment IV)

Patients now receiving free care or care at a reduced rate from their family physician should be urged to remain with that physician. Both hotline personnel and eligibility workers in the district Social Insurance offices will ask those applying for the program if they are currently being seen by a physician. If they are being seen by a physician they will be asked to contact that physician to see if he or she is participating in the

program prior to being certified, and if the physician is a participant, the patient is to determine if care can be continued under the program guidelines. If the client's physician is not participating in the program, the client should ask if care can be continued under the program guidelines, that is, free of charge. If that is not possible, the patient will undergo the eligibility determination process and will be referred into the program.

It is recommended that the patient be made aware of the value of the treatment he or she is receiving from the physician at the time of service.

Participating physicians to whom the patient is referred will be asked to see that patient for the existing illness at that time, but any new illness developing after that time should be handled through the hotline/referral system process. A physician's obligation in accepting a patient through Kentucky Physicians Care is to see that patient for one office visit. Subsequent visits are between the doctor and the patient. If a patient needs a referral to another physician in a different specialty, that referral should be made through the hotline/referral system.

Patients will be referred to only one physician. The patient will be given a physician's name closest to their home and of the appropriate specialty. Following that referral, the physician's name will be rotated to the bottom of the referral list in order to assure appropriate distribution of indigent patients among participating physicians.

Emergency or urgent calls: If a patient indicates that he or she is in immediate distress, the person covering the hotline will tell the caller that if they feel they need to be seen immediately they should go to the nearest emergency room.

The Committee will develop a prepaid return postal card which will be given to the patient upon certification of eligibility. That card must be presented to the participating physician at the time the service is performed to verify that the person is eligible to participate. The physician in turn will complete the information requested on the card and return it to the Headquarters Office for inclusion into the program's data base. Information to be reported will include the patient's name, address and phone number; the date the person was screened by CHR; code number for data base purposes; if the doctor felt the patient needed to be seen; if it is necessary to see the patient again; if the referral program was adequate and what the charge would have been for this visit had it been a normal office visit.

The Committee feels that a registered nurse should

HOUSE OF DELEGATES

be retained to handle the hotline if implemented. The Operating Committee will serve as an Advisory Committee on medical questions referred from the nurse staffing the hotline.

The Committee estimates that approximately \$80,000 will be required for the financing of the hotline/referral program for the initial year's operation from Jones.

The Committee feels strongly that in order to participate in the program individuals must be residents of Kentucky and citizens of the United States. The Committee recommends that the exclusionary statements (Attachment V) be adopted as a requirement for participation in the program.

If the House of Delegates approves KMA's participation in this program, it is felt that it would be beneficial, to the extent possible, that an informational outline be developed for physicians, which would answer as many anticipated questions as possible. This would be sent at the time solicitation for participation is made of the membership.

Services other than the physician's personal services are not covered. No out-of-pocket services such as lab, x-ray, or pharmaceuticals are covered.

The Committee had originally set forth a detailed and comprehensive program to make Kentucky physicians aware of the hotline/referral program and to solicit their support and participation in the program. However, because of unavoidable problems, we were unable to finalize the details of the program in time to put them into effect. As a result, the Committee felt that a letter should be sent to all members of the Association advising them of the program via a brief overview of the program. This was accomplished on August 1. Physicians were asked to return a postal card in an effort to determine what might reasonably be expected in terms of participation in the program. In addition, because of the lack of time to explain how the program would work, the Committee felt it appropriate to request that a special time be set aside during the Annual Meeting for Delegates to ask questions and make comments on this proposal. Rather than set up a seventh Reference Committee, it was suggested that a specific time be devoted to a discussion of the program during one of the regular Reference Committee meetings.

The development of the details for Kentucky Physicians Care was tedious and at times frustrating. However, I would like to thank Committee members Preston Nunnelle, M.D., Bob M. DeWeese, M.D., and Ronald D. Hall, M.D., for their input into the Committee's deliberations. I extend a particular note of thanks to

Social Insurance Commissioner, Jack Waddell, and his staff for their cooperation and fine efforts in developing the eligibility determination process.

Russell L. Travis, M.D.
Chairman

ATTACHMENT 1

Resources

Total liquid resources cannot exceed \$1,500.

Countable resources are:

- A. Cash;
- B. Stocks;
- C. Bonds;
- D. Savings accounts;
- E. Checking accounts;
- F. If a non-continuous or lump-sum payment was received in the month of application, the amount remaining on the application date is a resource;
- G. Certificates of Deposit.

Excluded resources include:

- A. Automobiles;
- B. Household and personal belongings;
- C. Prepaid burial policies;
- D. Cash surrender value of insurance policies;
- E. Principal residence;
- F. Cash on hand or money in bank accounts if part of income considered;
- G. Real property.

Income

Consider gross income rounded to the nearest dollar, for the month prior to application, of all persons who are members of the family in the month of application.

Count gross income received the month prior to month of application, except irregular income. Prorate income received on an irregular basis over the period it is intended to cover; *eg.*, farm income, even if not received the month prior to application.

Countable income includes, but is not limited to:

- A. Lump sum payments;
- B. Wages, including income of 16-18 year olds;
- C. Statutory benefits.
- D. AFDC;
- E. SSI;
- F. Child support (received and not forwarded to DCSE);

HOUSE OF DELEGATES

- G. Contributions
- H. Farm profit
- I. Self-employment profit
- J. Rental profit

Excluded Income includes:

- A. Payments received by the household from a federal, state, or local agency designated for a special purpose and which the applicant must spend for that purpose; e.g., foster care, special requirement educational allowance, IFGP, caretaker payments,

- WIN/JTPA incentives, VA and RSDI payments contingent on school attendance;
- B. Payments made to others on the household's behalf; e.g., Medicaid, vendor payments;
- C. Loans;
- D. Reimbursement for expenses;
- E. Incentive payments normally disregarded in AFDC;
- F. Federal payments or benefits which must be excluded according to federal law;
- G. Supplemental Medical Insurance premiums (SMI).

PA-47

COMMONWEALTH OF KENTUCKY
Cabinet for Human Resources
Department for Social Insurance

1. KMA Toll Free No. 1-800 _____

2. Application Date _____

APPLICATION/DETERMINATION FORM
KENTUCKY PHYSICIANS CARE

3. Case No. _____

5. Resident of Kentucky Yes ☐ No ☐4. Case Name _____
Last First M.I.

6. Address _____

7. FAMILY MEMBER INFORMATION

Member Name (Last, First, M.I.)	Relationship	US Citizen Yes/No	Age	Source Of Income	Frequency	Gross/Net Profit

8. Total Gross Income from Previous Calendar Month and Net Profit TOTAL \$ _____

9. If any member is not a U.S. citizen, does he/she have an I-151 or an I-551 (Green Card)? Yes ☐ No ☐If no, does he/she have a time limited I-94? Yes ☐ No ☐

10. Liquid Resources

Cash-on-Hand \$ _____

Savings Accounts _____

Checking Accounts _____

Stocks, Bonds, CD's _____

Other (Specify) _____

Total _____

Income Standard

Family Size	Monthly Income Limit	11. Within Limits Yes <input type="checkbox"/> No <input type="checkbox"/>
1	\$415	
2	560	
3	705	
4	850	
5	995	
Each Additional Member	Add 145	

Resource Standard

Family Size	Resource Limit	12. Within Limits Yes <input type="checkbox"/> No <input type="checkbox"/>
1 or More	\$1500	

13. Are you or anyone in your family covered by hospital or health insurance? Yes ☐ No ☐ _____
Company14. Do you or anyone in your family have a family physician? Yes ☐ No ☐ _____
Physician Name

15. Date of last illness of any family member? _____

Where did member go to receive medical care? _____

The Kentucky Physicians Care program is designed to refer eligible clients to the Kentucky Medical Association (KMA) for free medical care; the program is not part of the Kentucky Medical Assistance Program. Services provided by this program are not paid for by either state or federal funds. If you are eligible for this KMA program, free medical service is not guaranteed.

If you are eligible, the certification period will last up to six months. At the end of the six month certification period, you must recontact your Department for Social Insurance office to become recertified.

If you are certified as eligible for referral, call 1-800-_____ each time any member of your family listed above needs to visit a physician. The Kentucky Medical Association will give you the name of a physician who will provide the free care and will mail you a card which you must take to that physician. You should keep this form and have it available when you call the Kentucky Medical Association.

The Kentucky Physicians Care program is not governed by current Kentucky Administrative Regulations nor hearing and appeal procedures. Call 1-800-_____ if you have any questions or need additional information.

I certify the information provided by me in this application is correct and true to the best of my knowledge and belief. I understand that if I give false information for purposes of receiving free medical care, I will be prohibited from further participation in this program.

16. _____
(Applicant's Signature) (Date) (Phone)17. DECISION Date _____ ☐ Approved From _____ To _____ ☐ Denied Reason _____18. _____
(Worker's Signature) (Date)

Attachment III

Draft

PATIENT PARTICIPATION AGREEMENT

As a participant in the Kentucky Medical Association's program called KENTUCKY PHYSICIANS CARE, you are requested to carefully read the following information and sign this Agreement. If there is a portion of this information that you do not understand, please make that known to the doctor or a member of his staff, and it will be explained to you.

ELIGIBILITY REQUIREMENTS

Eligibility requirements include U.S. citizenship, Kentucky residency, the absence of private health insurance, income below the Federal poverty level, and ineligibility for any governmental health assistance programs.

The eligibility requirements for participation in KENTUCKY PHYSICIANS CARE have been fully explained to me, and I hereby certify that I meet all the eligibility requirements. I request that a representative of KENTUCKY PHYSICIANS CARE refer me to a licensed physician who has agreed to provide medical treatment to me or my dependents without cost for that period of time and under those terms and conditions prescribed by the licensed physician. I understand that in making this referral, the Kentucky Medical Association does not make any guarantee of the particular qualifications, skill, training or expertise of the physician to whom I am referred, except that he or she is duly licensed to practice medicine in the Commonwealth of Kentucky. I do hereby release the Kentucky Medical Association from any and all claims of liability, whether in contract or in tort of any nature whatsoever, arising out of or in conjunction with the actions of the Kentucky Medical Association, its agents, servants or employees, in referring me to the services of the licensed physician under KENTUCKY PHYSICIANS CARE. I understand that it is my obligation to notify the doctor who is providing medical service to me or to my dependents in the event I become ineligible to continue to participate in KENTUCKY PHYSICIANS CARE. I agree that at such time as I become ineligible to further participate in KENTUCKY PHYSICIANS CARE, I will be responsible for and agree to pay the physician's billed charges for any medical care provided for me or my dependents after I become ineligible.

I understand that in the event I become ineligible to participate in KENTUCKY PHYSICIANS CARE and am unable or unwilling to pay the physician's billed charges for medical care for me or my dependents received after I became ineligible, this physician may withdraw his or her services after providing a reasonable time in which to secure the services of another physician.

I have read or have had explained to me and understand the contents of this statement and have voluntarily signed this agreement on this _____day of _____, 1985.

Participant

Witness

ATTACHMENT IV

(Below you will find a sample which might be used on a postal card to obtain physician assent for program participation.)

PHYSICIAN PARTICIPATION AGREEMENT



Yes, I will participate in KMA's KENTUCKY PHYSICIANS CARE by providing services without charge to selected patients who have been deemed eligible for the program.

My specialty is: _____

Signature: _____

Name: _____

(Please Type or Print)

Address: _____

City: _____ Phone: _____

ATTACHMENT V

Exclusionary Statements Regarding Residency & Citizenship

A child or children and the relative with whom they live must be:

1. either citizens of the United States or legally admitted aliens; and
2. must reside in the state of Kentucky.

Any alien in this country with a time limited I-94 (alien identification card) is not eligible for the program.

Resolution J

Adair County Medical Society Kentucky Medical Insurance Company

WHEREAS, the Kentucky Medical Insurance Company was sponsored and approved by the House of Delegates of the Kentucky Medical Association approximately five years ago; and

WHEREAS, KMIC reported approximately \$12 million in assets, approximately 1,750 policyholders, and 862 stockholders as of December 31, 1983; and

WHEREAS, Kentucky physicians own 98% of the shares of the company; now therefore be it

RESOLVED, by the House of Delegates that the directors of KMIC be nominated on the basis of one director from each district, and that the directors be elected by the House of Delegates to serve for a minimum period of three years, but not to exceed nine years; and be it further

RESOLVED, that the Board composition become classified next year, in that initially five members be nominated and elected for one year, five members be nominated and elected for two years, and five members be nominated and elected for three years, and thereafter five members shall be nominated and elected each year; and be it further

RESOLVED, that the Articles of Incorporation or Bylaws be amended to provide for the change in the nomination and election of the directors; and be it further

RESOLVED, that this system would be more representative of the physicians and more democratic in principle; and be it further

RESOLVED, that the Annual Report be published each year in the *KMA Journal*.

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed Resolution J—Kentucky Medical Insurance Company, introduced by the Adair County Medical Society. The Reference Committee was provided with legal interpretation that the intent of this Resolution cannot be carried out by KMA. We therefore recommend that Resolution J be rejected.

Resolution X

Garrard County Medical Society KMIC Insurance for Family Physicians

WHEREAS, the Kentucky Medical Insurance Company (KMIC) has recently raised its Class II insurance rate 200% for family physicians doing obstetrics; and

WHEREAS, The KMIC is unfair in passing this raise on to family physicians as the raise was made because of large lawsuits brought against family doctors, and it is questionable that the suits were the result of these men being family doctors; and

WHEREAS, such high rates placed on family physicians doing obstetrics will undoubtedly drive many of the family doctors out of doing obstetrics, returning the delivery of babies to midwives and birthing centers, thus returning our patients back into medieval care for delivery of their babies; and

WHEREAS, many obstetricians are also being sued and being forced to discontinue the practice of obstetrics, leaving fewer and fewer doctors who do obstetrics; and

WHEREAS, the KMIC has published "Guidelines for High Risk Obstetrics as it Relates to Family Practice" and has asked family doctors not to accept patients who fall within this list, thus severely limiting the practice of obstetrics for the family doctor where he can do only the simplest of deliveries, and

WHEREAS, such restrictions, as published by KMIC, are entirely unfair and insulting to the Family Practice doctor and invade the practice of the private doctor, jeopardize the patient/doctor relationship and the ability of the doctor to practice quality medicine for his patients, and could lead to litigation and be a dangerous threat to all specialists once enacted; and

WHEREAS, the "Guidelines" for Family Practice doctors doing obstetrics should apply equally to OB-GYNs or Nurse Practitioners or midwives doing obstetrics; and

WHEREAS, KMIC is proposing to set up CME requirements for the family doctor who is a policyholder and doing obstetrics, and proposes to set up annual seminars for this purpose when there is no evidence to show the CME course would make anyone doing obstetrics a better doctor; but, if implemented, all who do obstetrics, whatever vintage, should be required to take the CME course, or none should; now therefore be it

RESOLVED, that the KMA House of Delegates be opposed to the discriminatory and unfair rule calling

HOUSE OF DELEGATES

for a high increase in insurance rates for just the Family Practice doctors doing obstetrics to cover the high losses; and be it further

RESOLVED, that if increases are necessary, they be shared by all members carrying insurance in KMIC, and be it further

RESOLVED, the KMA House of Delegates go on record as being strongly opposed to the KMIC "Guidelines for High Risk Obstetrics as it Relates to Family Practice"; and be it further

RESOLVED, that the KMA House of Delegates oppose the KMIC-required annual attendance at a seminar by just the family physicians who are doing obstetrics and who are policyholders in their company, unless such requirements extend to all doctors and specialists who have insurance in the company.

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed Resolution X—KMIC Insurance for Family Physicians, introduced by the Garrard County Medical Society, and heard considerable discussion on the burden this places on Family Physicians and their fear that this would cause many Family Physicians to cease providing obstetrical care to their patients. However, we noted that the KMA Board of Trustees, on September 16, 1984, stated that KMIC is already working with the Family Physicians and that it is a matter between KMIC and its policyholders, individually and collectively.

The Committee recommends that Resolution X be referred to the KMA Board of Trustees.

The motion was seconded from the floor.

David C. Liebschutz, M.D., Delegate from Boyle County, was recognized and made a substitute motion that the first and second Resolveds only be referred to the Board of Trustees, and the third and fourth Resolveds be adopted.

President Holloway was recognized and stated that portions of the Resolution as written were not accurate and he provided background information regarding KMIC's decision to institute changes in coverage of family physicians performing obstetrics.

The Speaker pointed out that Doctor Liebschutz's substitute motion divided the question, and he called for a split vote.

The first vote was on the motion that the first and second Resolveds only be referred to the Board of Trustees, and the motion was seconded from the floor and carried.

The remainder of the motion to adopt the third and

fourth Resolveds of Resolution X was seconded from the floor and carried.

Resolution CC

Campbell-Kenton County Medical Society Medicaid and Indigent Care

WHEREAS, the University of Kentucky Hospital has stated its objective to maintain indigent care at approximately 5% of revenues and Medicaid at approximately 15% of total patient days; and

WHEREAS, statewide, a "Fair Share" of indigent care and Medicaid patient days would be approximately 2.6% and 8.4%, respectively; and

WHEREAS, it is known that many Kentucky physicians provide more indigent care and Medicaid service to the citizens of Kentucky than any of the above figures; and

WHEREAS, the University of Kentucky Hospital receives a significant amount of tax dollars for this service and the practicing physicians of Kentucky do not; now therefore be it

RESOLVED, the KMA oppose the stated objective of the University of Kentucky Hospital to maintain indigent care at approximately 5% of revenues and Medicaid at approximately 15% of total patient days as being too low; and be it further

RESOLVED, the University of Kentucky Hospital and University of Louisville Hospital should do significantly more than their "Fair Share" of indigent and Medicaid service; and be it further

RESOLVED, the KMA collect data on the amount of indigent care and Medicaid service that many of Kentucky's physicians are providing and use this information to enlighten the Legislature and the citizens of the Commonwealth.

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed Resolution CC—Medicaid and Indigent Care, introduced by the Campbell-Kenton County Medical Society. The Committee felt that care for the indigent is a responsibility of all persons and institutions providing medical care, and that it is probably not appropriate for KMA to propose or endorse any particular percentage of care for such providers.

The Committee therefore recommends rejection of the first and second "Resolveds."

The Committee is aware that the intent of the third

HOUSE OF DELEGATES

“Resolved” is appropriate, and therefore recommends that the following Substitute Resolution be adopted in lieu of Resolution CC:

“RESOLVED, that the Board of Trustees consider the feasibility and implementation of collecting data on the amount of indigent care and Medicaid service that many of Kentucky’s physicians are providing and use this information to enlighten the Legislature and the citizens of the Commonwealth.”

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 1 as a whole as amended.

Mr. Speaker, I want to thank the members of Reference Committee No. 1 who diligently considered the issues that were presented to us. They are Cecil L. Grumbles, M.D., Louisville; Tom S. Maddox, Jr., M.D., Owensboro; R. Gary Marquardt, M.D., Murray; and John D. Perrine, M.D., Lexington. I also want to personally thank Sharon Sellinger for her assistance in the preparation of this report.

Reference Committee No. 1

Paul J. Parks, M.D., Bowling Green, Chairman

Cecil L. Grumbles, M.D., Louisville

Tom S. Maddox, Jr., M.D., Owensboro

R. Gary Marquardt, M.D., Murray

John D. Perrine, M.D., Lexington

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 2

Lynn L. Ogden, M.D., Chairman

Reference Committee No. 2 considered the following Reports and Resolutions:

15. Report of the Scientific Program Committee
16. Report of the Scientific Exhibits Committee
17. Report of the Continuing Medical Education Committee

December 1984

18. Report of the Council for Continuing Medical Education
19. Report of the Cancer Committee
20. Report of the Hospital Committee
21. Report of the Emergency Medical Care Committee
22. Report of the Interspecialty Council

Resolution H - Minimum Hospital Liability Insurance Coverage (McCracken County Medical Society)

Resolution I - KMA-KHA Cooperation (McCracken County Medical Society)

Resolution K - KMA County Society Quality Assurance Committees (Campbell-Kenton County Medical Society)

Resolution L - Quality Assurance Plan (Campbell-Kenton County Medical Society)

Resolution M - Cooperation Between Physicians and Hospitals (Campbell-Kenton County Medical Society)

Resolution O - Medical Staff Self-Governance (Campbell-Kenton County Medical Society)

Resolution P - Hospital Census (Jefferson County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 2 reviewed the following items and recommends they be filed as indicated, by the consent of the House, without discussion:

15. Report of the Scientific Program Committee - filed
16. Report of the Scientific Exhibits Committee - filed
17. Report of the Continuing Medical Education Committee - filed
18. Report of the Council for Continuing Medical Education - filed
19. Report of the Cancer Committee - filed
22. Report of the Interspecialty Council - filed

Report of the Scientific Program Committee

The 1984 KMA Annual Meeting features the overall theme of “Sports Medicine.” The Committee members and specialty groups have made an extraordinary effort to bring in some of the country’s most outstanding

HOUSE OF DELEGATES

speakers, and we feel the topics that will be presented will be timely and of interest to the general membership.

A highlight of this year's meeting will be an afternoon devoted to the subject, "Preparing the Athlete for Competition." We are pleased to have Doctor Donald Cooper from the University of Oklahoma as our speaker. Doctor Cooper is a highly sought after speaker and we are indeed fortunate to have him visit with us.

The Scientific Program was planned in early November and a second meeting was held in December with the Presidents of the 23 specialty groups participating in the Annual Session to discuss their part in planning the Scientific Program. The various specialty group scientific programs, which are held in conjunction with our general session, continue to prove invaluable and we feel provide an outstanding contribution to the continuing medical education of the membership. I am most grateful for the excellent cooperation in planning the overall meeting we have received from the specialty groups.

This year the program will be held in the Hyatt Regency, Lexington Convention Center. The hotel has been totally remodeled and the Convention Center offers an excellent convention facility allowing us to hold the entire meeting at a single location.

The Committee is proud of the fact that KMA's Annual Scientific Program continues to be one of the best attended state meetings in the country. It has received accreditation for continuing medical education by the American Medical Association as well as several specialty societies. The Committee feels that the technical exhibit area is a worthwhile and meaningful adjunct to the formal scientific program, and the exhibits offer members the opportunity to discuss new products with the various manufacturers free from the interruptions and distractions of the office or hospital. The Technical Exhibit Hall has been increased in size again this year and we encourage all members of the House of Delegates to visit the exhibits at their convenience.

As Chairman of the Scientific Program Committee, I am most grateful for the efforts of those who have assisted in the formation of this program, particularly the Program Committee, the specialty group presidents and specialty group program chairmen. In particular, I would like to express my heartfelt thanks and sincere appreciation to William T. Applegate and his staff for their invaluable assistance and excellent work in preparing this outstanding program.

Suggestions for future programs are always welcome by the Scientific Program Committee.

James A. Baumgarten, M.D.
Chairman

Report of the Scientific Exhibits Committee

As previously reported, the Scientific Exhibits Committee does not meet formally as a group. Our activities are very ably handled by phone and correspondence which consists almost solely of reviewing proposed exhibits. Each year we manage to fill assigned space, and the quality of exhibits continues to improve. In most cases, we have been able to accommodate requests for exhibit space and to meet the needs of exhibitors.

Through several minor revisions to exhibit rules and application forms, we have been able to eliminate several long-term problems. These problems centered around setting up and tearing down exhibit material and the staffing of booths. While the Committee recommends and urges exhibitors to be present during the entire meeting, we recognize the imposition this places upon physician exhibitors. Therefore, we urge meeting attendees to understand the physician exhibitor's predicament and cooperate with the Committee and the exhibitor in this matter.

The 1984 Scientific Exhibits will be located at the entrance to the Technical Exhibit Hall, and we urge all attendees to observe the exhibits and recognize the contributions being made to the overall quality of the KMA Annual Meeting.

The Committee appreciates the confidence you have placed in us and looks forward to further service.

Richard A. Kielar, M.D.
Chairman

Report of the Continuing Medical Education Committee

The Continuing Medical Education Committee has met three times this year, with primary activities being devoted to processing accreditation requests and re-surveys of previously accredited facilities and organizations.

KMA currently has accreditation authority through

HOUSE OF DELEGATES

the Accreditation Council for Continuing Medical Education (ACCME), a voluntary, national-level group which has the American Medical Association (AMA) as one of its founding members. Although lacking any authority other than that granted by its federation of members, the ACCME is recognized nationally as the credible accreditation organization. Dues are paid to the ACCME and resurvey of KMA's accreditation process is scheduled to take place within the year, although a final date has not been set.

Controversy has surrounded the ACCME because of its structure and organization, with the AMA being included among the critics. While there has been some discussion nationally of withdrawing support from the ACCME, the AMA has continued its support, and the Committee likewise feels that this support should be continued. A basic reason is that it is felt that KMA should remain the accrediting agency for physician continuing education in the state.

For the information of the membership, accreditation for Category I continuing medical education (CME) can be acquired either through direct accreditation of a facility or group, or through cosponsorship of individual programs by the KMA CME Council. In either event, Category I CME programs can be qualified only if they meet requirements of continuity of performance, quality of program content, and organizational capabilities of the program's sponsor.

While it is felt KMA should remain the accreditation authority, this can only be justifiably done if the programs it accredits do meet quality standards. For this reason, there is a dual responsibility on both KMA and programs seeking accreditation, and quality objectives must be met by both parties.

As Chairman, I would like to thank the members for their unswerving help and input.

James E. Redmon, Jr., M.D.
Chairman

Report of the Council for Continuing Medical Education

The Council for Continuing Medical Education works in conjunction with the Continuing Medical Education (CME) Committee. It was created solely to oversee and process cosponsored Category I CME programs.

Separation of the two activities of accreditation and

cosponsorship was felt to be necessary to avoid any conflicts between in-house accredited programs, as opposed to cosponsored programs. Even though the Council members act separately on cosponsoring requests, the Council has like concerns. Cosponsored programs must meet the same Category I requirements with regard to quality of program content and continuity of operation as do fully accredited programs.

However, cosponsorship is generally directed to single programs, and must include the input of Council members in the planning stages. This year six programs were cosponsored and given Category I credit by the Council. For the most part, these consisted of meetings being offered by statewide medical specialty groups.

We urge any facility or group of physicians interested in cosponsoring Category I meetings to contact the Council through the KMA Office, and I would like to thank all the members for their help this year.

Nelson B. Rue, M.D.
Chairman

Report of the Cancer Committee

Due to the 1984 Kentucky General Assembly and conflicting schedules, the KMA Cancer Committee did not meet during the 1983-84 Associational Year. However, the Committee continues to monitor activities relating to the Committee's charge and acts upon those assignments given to it by the KMA Board of Trustees.

Reports on the activities of the large cancer centers are available from those specific centers upon request.

On behalf of the Committee, we appreciate the opportunity of serving the Association and all physicians of Kentucky. We look forward to a fruitful year during 1984-85 and urge any member to forward items of interest to the Committee.

P. Raphael Caffrey, M.D.
Chairman

Report of the Interspecialty Council

The Interspecialty Council was charged by the Executive Committee of the Board of Trustees to review the proposed Blue Cross and Blue Shield Diagnostic Imaging Guidelines. In 1985 Blue Cross and Blue Shield

HOUSE OF DELEGATES

will begin restricting its coverage of x-rays, CT scans, and other diagnostic procedures it considers medically unnecessary. The Council members present were in general agreement with the majority of the proposals and indicated areas which might be reconsidered. Specialty groups will have until December 1, 1984, to reply to the Council before recommendations are made to the KMA Board of Trustees.

The Council recognizes that these guidelines and others have come about as a result of the health cost dilemma. While the profession has responded well over the past two years, we believe that physicians must become even more cost conscious in the days ahead. It is important that we become more educated and maintain our credentials. Physicians must be more willing to rely upon their colleagues in those areas of expertise where they are specially trained. The Council noted in reviewing the Imaging Guidelines that there should be more consultation with the radiologist in ordering x-rays, imaging, *etc.* Not only would health costs be reduced, but in many cases other options may be more beneficial in terms of diagnosis.

Legislation introduced into the 1984 Kentucky General Assembly affected practically every specialty, and we note an increasing trend of nonphysician groups seeking medical practice privileges. Several legislative proposals, which would have been severe in application had they been adopted, were introduced as a result of misinformation.

During the coming year, the Interspecialty Council expects to address several of these proposals and will consider alternatives which might alleviate the concern of the public and legislators.

The KMA continues to operate the Department of Specialty Services, and we urge the various state specialty societies to utilize these services.

The Interspecialty Council is made up of 23 specialty groups and its membership is appointed by the individual specialty groups, with most members serving approximately three years. This provides continuity not only to the Committee but also to the specialty groups. Many issues presented to the Interspecialty Council sometimes take several years to resolve. We urge the groups to continue this practice.

For those specialty groups not presently recognized by the Kentucky Medical Association as members of the Interspecialty Council, the following guidelines are listed for information:

1. Specialty groups must have a national or parent organization.

2. Specialty groups, to be recognized, may or may not have a separate and distinct Certifying Board.
3. The state society applying for recognition must first have formal affiliation with its national counterpart.
4. A specialty group must be a primary specialty or "major" subspecialty in terms of delineated scientific knowledge within the realm of the discipline of medicine.
5. The specialty group must have sufficient membership or potential membership to make worthy and significant contributions to the KMA Annual Meeting, to be decided by the KMA Executive Committee.

The Committee looks forward to working with the profession on issues of importance to this Association.

Paul J. Parks, M.D.
Chairman

END OF CONSENT CALENDAR ITEMS

Report of the Hospital Committee

During the course of its two meetings the Hospital Committee discussed a number of issues falling within its jurisdiction. Changes in the "Baby Doe" regulations; the controversy over vaccination for Hepatitis-B; the State Health Plan's formula for tiering hospitals and the services they provide; the U.S. Supreme Court's review of exclusive contracts between hospitals and physicians; the development of frequently conflicting legal opinions regarding the status of "independent, self-governing" medical staffs; and a review of proposals which surfaced during the 1984 session of the Kentucky General Assembly all served to provide a busy reporting period for this Committee.

The Committee also dealt with three items passed by the 1983 KMA House of Delegates. Resolutions X, Y and Z addressed medical staff representation on hospital governing bodies, medical staff self-government and legal representation for medical staffs, respectively. These Resolutions were later distributed to the chiefs of staff, administrators and heads of the governing body of all Kentucky hospitals.

Looking specifically to those issues which went through an evolutionary process between the time the Committee initially met in December, 1983, and its second meeting some six months later, we find that "Baby Doe"

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

regulations were ultimately invalidated as the result of two separate legal actions in New York. In the first case, HHS had asked the Court to direct University Hospital in Stony Brook, New York, to comply with its demands for Baby Jane Doe's medical records. The Government claimed it needed the records to determine whether the infant had been a victim of discrimination under Section 504 of the Rehabilitation Act. The Court ruled that Section 504 does not authorize HHS to interfere in medical treatment decisions involving handicapped infants. In the second suit, the U.S. District Court dealt specifically with the regulations and affirmed that the Federal Government should not become involved in the treatment of severely handicapped newborns.

The Committee reviewed its recommendation regarding vaccination against Hepatitis-B and reaffirmed its position as set out in its report to the 1983 House of Delegates.

Litigation regarding the State Health Plan and its formula for tiering hospitals and the services they provide was settled with the entry of a *Memorandum of Understanding* in an action filed against the Cabinet for Human Resources, and others, in the Franklin Circuit Court. The Committee had monitored this action closely and noted that the settlement agreement called for the State Health Planning Council to reconsider those provisions of the Plan about which the Committee and KMA had expressed concern.

Shortly after the entry of the settlement agreement, CHR sought to promulgate a number of new regulations and to reinstitute a statewide moratorium on the construction of long-term care beds. This prompted the Nursing Home Association to initiate litigation framed on much the same legal principles as the suit that had been settled previously. At the time of this writing, the new suit is still pending, and CHR's regulatory activities have been curtailed significantly.

This was not the only issue keeping the judiciary busy. On the national level, the U.S. Supreme Court ruled in a case styled *Jefferson Parish Hospital District v. Hyde*, that hospitals do not automatically violate antitrust law by entering into an exclusive contract for the provision of anesthesia services. The decision reversed an Appellate Court ruling finding the exclusive contractual arrangement an illegal tying agreement that is a "per se" violation of the antitrust laws.

Another matter which commanded the Committee's attention was the controversy regarding the legal status of hospital medical staffs. The Committee reviewed the

opinions of various commentators, noting in particular the disparity between the legal analyses of David Willett in California and John Harty in Pennsylvania. The Committee also studied the most recent AMA position regarding medical staff autonomy and noted that recent actions by the AMA House of Delegates called for the appointment of a task force to research this question.

Several proposals which surfaced during the 1984 session of the Kentucky General Assembly were discussed by the Committee. Of primary concern was a bill calling for all health care providers to render itemized statements. Another dealt with a prohibition against charging for services attendant to the admission or discharge of a patient from a hospital. Neither of these bills was enacted into law, but the Committee felt they would reappear in 1986. Therefore, the Committee recommended that both proposals be referred to the Committee on State Legislative Activities for study.

The Committee also recommended that the KMA Board of Trustees take steps to distribute a pamphlet published by the AMA and styled, "What Your Patients Should Know About DRG's," to all chief medical officers in hospitals throughout the State.

As Chairman, I would like to thank the members of the Hospital Committee for their interest and participation in the activities of the Committee.

John D. Perrine, M.D.
Chairman

RECOMMENDATIONS:

1. The issue of proposed legislation calling for all health care providers to render itemized statements and legislation regarding charges for services attendant to the admission or discharge of a patient from a hospital be referred to the Committee on State Legislative Activities.

Recommendations, Reference Committee No. 2:

The Committee considered the Report of the Hospital Committee and recommends that the Report, along with its recommendation, be adopted.

Report of the Emergency Medical Care Committee

The Emergency Medical Care Committee was again pleased to present the 14th Annual Emergency Medical

HOUSE OF DELEGATES

Care Seminar. The program was held in Louisville on June 5-7, and 489 registrants participated. The program content provided continuing education to physicians, nurses, emergency medical technicians, paramedics, and other interested health and medical support personnel.

The program was accredited by the American Medical Association, American College of Emergency Physicians, American Academy of Family Physicians, Kentucky Board of Nursing, and the National Registry of Emergency Medical Technicians. The intensive 2-1/2 day program combined lectures and workshops with hands-on experience and opportunities to hear and observe some of the most renowned experts in the emergency medical care field. The Seminar continues to draw participants from other states, which indicates the high-level format of the program. Over 50 speakers participated in the program this year, without compensation. This allows the Committee to maintain an extremely low fee which covers all costs including meals, breaks, equipment, etc. We are extremely grateful to the program speakers for their contributions to our fine program.

The Louisville Fire Department provided the participants with another exciting extrication demonstration, and we are appreciative of its contributions to the overall success of the meeting.

For the first time, the Committee presented an accredited course in Advanced Cardiac Life Support for 30 participants. This program was highly successful and provided physicians an opportunity to upgrade their cardiac life support techniques.

The Emergency Medical Care Committee recommends that the Emergency Medical Care Seminar be conducted again next year under the auspices of the Committee as the coordinating agency.

In other actions, the Committee received an update on the controversial 1982 University of Louisville Trauma Center Report. That report, as many of you recall, indicated that 70% of accident victims were receiving inadequate care by other hospital emergency rooms prior to their transfer to the University of Louisville. In a most recent report, the figure has dropped to 27% according to the authors. In our 1983 Report to the KMA House of Delegates, we outlined actions the Committee had taken to improve emergency medical care and believe it has contributed to the care rendered in our hospitals. The Committee will continue to monitor this

most important phase of medical care and will provide periodic reports, as necessary, to the membership.

E. Truman Mays, M.D.
Chairman

RECOMMENDATION:

1. The Emergency Medical Care Committee recommends that the Emergency Medical Care Seminar be conducted in 1985 under the auspices of the Committee as the coordinating agency.

Recommendations, Reference Committee No. 2:

The Committee considered the Report of the Emergency Medical Care Committee and recommends that the Report, along with its recommendation relating to the presentation of an Emergency Medical Care Seminar in 1985, be adopted.

Resolution H

McCracken County Medical Society Minimum Hospital Liability Insurance Coverage

WHEREAS, hospital insurers are now mandating changes in medical staff bylaws requiring medical staff members carry inordinate amounts of malpractice insurance as a condition of medical staff privileges; and

WHEREAS, medical staff members with excessive amounts of insurance will be the "deep pocket" in any malpractice litigation, continually escalating medical staff members' premiums and diminishing the risk to the hospital's insurer; saving the hospital's insurer millions in insurance dollars while shifting the burden to the medical staff's insurer; and

WHEREAS, the medical staff members' insurer is at tremendous risk when the limits of coverage are common knowledge; and

WHEREAS, the Kentucky Medical Insurance Company should receive the same risk protection as the hospital's insurer; now therefore be it

RESOLVED, that the Kentucky Medical Association petition the KMIC Board to require all hospital boards to revise their bylaws to include a provision of compulsory minimum hospital malpractice insurance; to require the insurance be provided by a company licensed or approved by the State; and to identify to the medical staff evidence of compliance; and be it further

RESOLVED, that KMIC require these minimum hospital insurance standards be met as a condition of admitting medical staff patients to said hospitals.

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

Recommendations, Reference Committee No. 2:

The Committee considered Resolution H, Minimum Hospital Liability Insurance, introduced by the McCracken County Medical Society, and recommends that the following substitute wording be adopted in place of the existing two "Resolveds":

"RESOLVED, that the Kentucky Medical Association recommends that all hospital staffs urge their hospitals to acquire and maintain adequate levels of hospital malpractice insurance."

Reference Committee No. 2 recommends the adoption of Resolution H, as amended.

Resolution I

McCracken County Medical Society KMA-KHA Cooperation

RESOLVED, that the Kentucky Medical Association and the Kentucky Hospital Association work together on matters that are of vital and equal interest to both organizations.

Resolution M

Campbell-Kenton County Medical Society Cooperation Between Physicians and Hospitals

WHEREAS, new government programs for Medicare and Medicaid hospital patients increase the need for development of open communication and cooperation among hospital boards of trustees, hospital management, and medical staffs; now therefore be it

RESOLVED, that the KMA initiate and sustain official methods of communication with the KHA; and be it further

RESOLVED, that the KMA encourage its component county societies to initiate and sustain official methods of communication with their local hospital or hospitals; and be it further

RESOLVED, that the purposes of such official communication between the components of organized medicine and organizations of hospital management be to maintain the quality of care of patients and to jointly develop and maintain cost effective health care systems.

KHA Cooperation, introduced by the McCracken County Medical Society, and Resolution M, Cooperation Between Physicians and Hospitals, introduced by the Campbell-Kenton County Medical Society.

The Committee feels that Resolution M is more comprehensive and should be adopted in lieu of Resolution I.

Resolution K

Campbell-Kenton County Medical Society KMA/County Society Quality Assurance Committees

WHEREAS, the Joint Commission on Accreditation of Hospitals continues to emphasize quality assurance activities within hospitals and other medical facilities; and

WHEREAS, recent court cases in the Commonwealth of Kentucky have indicated that hospitals are responsible for the quality of services offered within their confines even by nonemployees of the hospital; and

WHEREAS, hospital boards of trustees and administrators feel obligated to create elaborate quality assurance plans and monitoring devices; now therefore be it

RESOLVED, that the Kentucky Medical Association investigate the possibility of creating through its component county societies quality assurance committees; and be it further

RESOLVED, that the quality assurance committees of the county medical societies be marketed to the local hospitals as the hospitals' best method of assuring quality of care within the hospitals.

Recommendations, Reference Committee No. 2:

The Committee considered Resolution K, KMA/County Society Quality Assurance Committees, introduced by the Campbell-Kenton County Medical Society.

The Committee recommends that Resolution K be referred to the Board of Trustees for study and report back, with a plan if indicated.

Recommendations, Reference Committee No. 2:

The Committee jointly considered Resolution I, KMA-

Resolution L **Campbell-Kenton County Medical Society** **Quality Assurance Plan**

WHEREAS, cost containment has become a paramount concern of most third-party payors; and

WHEREAS, many health insurance plans are being developed with inherent cost containment provisions; and

WHEREAS, the quality of patient care can be adversely affected by cost containment methods; and

WHEREAS, physicians and the Kentucky Medical Association are the strongest advocates of quality patient care; now therefore be it

RESOLVED, that the Kentucky Medical Association develop a model quality assurance plan that can be adapted and utilized by the medical staffs of the hospitals of the Commonwealth of Kentucky.

Recommendations, Reference Committee No. 2:

The Committee considered Resolution L, Quality Assurance Plan, introduced by the Campbell-Kenton County Medical Society.

The Committee recommends that Resolution L be referred to the Board of Trustees for study and report back, with a plan if indicated.

Resolution O **Campbell-Kenton County Medical Society** **Medical Staff Self-Governance**

WHEREAS, court decisions have caused many organizations to reevaluate the meaning of the medical staff of a hospital; and

WHEREAS, the self-governance status of the medical staff is also being questioned and challenged; now therefore be it

RESOLVED, that the Kentucky Medical Association adopt the following statement regarding medical staff governance:

1. The medical staff bylaws, rules and regulations shall be initiated and adopted by the medical staff and shall establish a framework of self-government;
2. The medical staff shall govern itself by these bylaws, rules and regulations which shall (A) be approved by the governing body whose approval shall not be unreasonably withheld; (B) be reviewed and revised as necessary to reflect current

medical staff practices; (C) define the Executive Committee of the medical staff whose members are selected in accordance with criteria and standards established by the medical staff; and

3. The medical staff shall have authority to approve or disapprove all amendments to medical staff bylaws, rules and regulations; and be it further

RESOLVED, the KMA endorses the position of the AMA with respect to the responsibilities and functions of the hospital, its governing board, and the medical staff, that:

1. The hospital has corporate responsibility for maintaining the necessary facilities, a safe environment, and a mechanism for the prudent selection of those who treat patients within the institution.
2. The governing board is responsible for the operation and management of the hospital and fulfilling its corporate responsibilities.
3. The organized medical staff and its members have a contractual obligation entered into with the hospital, to carry out their professional medical responsibilities through (A) the efficient operation of medical staff committees; (B) the objective selection of professionally qualified members of the organized medical staff and disciplinary functions relative to their competent performance; and (C) functioning as a self-governing body in promoting quality patient care within the hospital.
4. Members of the organized medical staff may likewise deal collectively, as an entity, with the hospital and its governing board with respect to professional matters involving their own interests, as distinguished from the functions the organized medical staff performs on behalf of the hospital; and be it further

RESOLVED, the KMA inform the American Medical Association of its endorsement of these AMA policies; and be it further

RESOLVED, the KMA inform the Kentucky Hospital Association of its adoption of these policies.

Recommendations, Reference Committee No. 2:

The Committee considered Resolution O, Medical Staff Self-Governance, introduced by the Campbell-Kenton County Medical Society.

The Committee recommends that Resolution O be adopted.

HOUSE OF DELEGATES

Resolution P Jefferson County Medical Society Hospital Census

WHEREAS, Kentucky physicians over the past year have observed a general decline in hospital census; and

WHEREAS, the pool of acute care patients to be hospitalized has shrunk due to the fact that 40% of all surgery now is done on an outpatient basis; and

WHEREAS, the decline in hospital census may be permanent due to a number of factors, which may include the continued growth of insurance incentives, peer review and government reimbursement, and prospective pricing programs; and

WHEREAS, patients' costs are increasing because hospitals are embarking on marketing efforts, including radio, television and newspaper advertising, promoting a wide variety of programs and services designed to maintain occupancy levels of the past; now therefore be it

RESOLVED, that the Kentucky Medical Association discuss with the Kentucky Hospital Association and its individual members the possibility that hospitals' efforts to maintain unrealistically high occupancy levels may result in increased cost and financial instability of hospitals which could have a detrimental effect on the quality of medical care in Kentucky, and be it further

RESOLVED, that the Kentucky Medical Association propose a joint effort with the Kentucky Hospital Association to consider alternatives to efforts to maintain acute care census; for example: (a) conversion of unoccupied hospital beds to long-term care beds; (b) delicensure of unused beds; and (c) swing beds.

Recommendations, Reference Committee No. 2:

The Committee considered Resolution P, Hospital Census, introduced by the Jefferson County Medical Society.

The Committee recommends that Resolution P be adopted.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 2 as a whole.

Mr. Speaker, I would like to thank the other members of the Committee: William B. Monnig, M.D., Erlanger; John M. Johnstone, M.D., Richmond; H.B. McWhorter, M.D., Ashland; and Charles B. Spalding, M.D., Bardstown, for time spent in listening to testimony, and others who made comments at the Reference Committee Meeting. I would also like to thank our secretary, Joanie Jecker.

December 1984

Reference Committee No. 2

Lynn L. Ogden, M.D. Louisville, Chairman

William B. Monnig, M.D. Erlanger

John M. Johnstone, M.D. Ashland

H.B. McWhorter, M.D. Ashland

Charles B. Spalding, M.D. Bardstown

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 3

Veryl F. Frye, M.D., Chairman

Reference Committee No. 3 considered the following Reports and Resolutions:

23. Report of the Maternal Mortality Study Committee
24. Report of the Committee on National Legislative Activities
25. Report of the Committee on State Legislative Activities
26. Report of the Committee on Impaired Physicians
27. Report of the Committee on Long-Term Care

Resolution F - KMA Benevolent Fund (Board of Trustees)

Resolution T - Professional Liability Reform (Jefferson County Medical Society)

Resolution Y - Catastrophic Illness (Campbell-Kenton County Medical Society)

Report of the Maternal Mortality Study Committee

The Maternal Mortality Study Committee met twice during this Associational year to consider matters falling within its jurisdiction. The Committee noted that the Kentucky Medical Association House of Delegates, during its 1983 meeting, recommended that the Report of the Maternal Mortality Study Committee "contain information about the number of maternal mortality cases

HOUSE OF DELEGATES

per year and their nature and that this information should be compared on a regional/national basis."

I have attempted to do this with the very valuable help of John Petry, M.D., who is Secretary of the Committee and has done a magnificent job in the last 20 years keeping accurate records on the work of the Committee. I thought it would be of help in this report to essentially summarize the last four years that have been studied; that is, 1979, 1980, 1981 and 1982.

Currently the Committee material is gathered by Doctor Petry from sources in Frankfort. He then contacts the various physicians and hospitals involved. The deaths are reviewed at great length by members of the Committee, and considerable time is given to the deliberation of etiologic factors in the maternal deaths. Committee meetings last from two to three hours. The attached information shows the number of deaths per year and whether they are direct or indirect obstetrical deaths. It should be said that an indirect obstetrical death is one that would occur whether the patient is pregnant or not. A direct obstetrical death is one with factors in the pregnancy causing maternal demise. This does not necessarily impute fault on the part of the people or the institution caring for the patient.

The House of Delegates is very interested in knowing

MATERNAL DEATHS - KENTUCKY		
Year	Total	
	Deaths	Rate (No./10,000)
1966	34	5.8
1967	21	3.6
1968	15	2.7
1969	17	3.0
1970	22	3.7
1971	20	3.3
1972	22	3.6
1973	16	3.0
1974	15	2.8
1975	15	2.7
1976	13	2.4
1977	13	2.1
1978	8	1.4
1979	8	1.4
1980	17	2.9
1981	6	1.0
1982	8	2.1

TABLE 1-1.
MATERNAL MORTALITY IN THE UNITED STATES 1935-1978

MATERNAL DEATHS		RATE PER 100,000 LIVE BIRTHS		
Year	(No.)	Total	White	Other
1935	12,544	582.1	530.6	945.7
1940	8,876	376.0	319.8	773.5
1945	5,668	207.2	172.1	454.8
1950	2,960	83.3	61.1	221.6
1955	1,901	47.0	32.8	130.3
1960	1,579	37.1	26.0	97.9
1965	1,189	31.6	21.0	83.7
1970	803	21.5	14.4	55.9
1975	403	12.8	9.1	29.0
1976	390	12.3	9.0	26.5
1978*	320	9.9	—	—

* Provisional

From Facts of Life and Death, United States Department of Health, Education and Welfare, 1978, Publication No. 79-1222 and Monthly Vital Statistics Report, United States Department of Health, Education and Welfare, 27(13):8, 1979.

MATERNAL DEATHS 1979

Several deliveries occurred elsewhere and were referred to the University of Kentucky or the University of Louisville.

8 Maternal Deaths

Para:	0	5	Age:	13	1
	1 - 3	2		15 - 19	0
	4 - 6	1		20 - 24	4
				25 - 29	1
				30 - 34	1
				35 - 39	1

County			Autopsy
Fayette	Direct	Obstetric, cardiac arrest	Yes
Jefferson	Indirect	Auto accident	No
Fayette	Direct	Severe preeclampsia with disseminated intra-vascular coagulopathy	No
Fayette	Direct	Cesarean section, possible aspiration	No
Pulaski	Direct	Hemorrhage, ectopic pregnancy	Yes
Jefferson	Direct	Cardiac arrest during anesthesia	No
Bell	Direct	Hemorrhage	No
Jefferson	Direct	Hemorrhage; patient had mitral valve replacement, cerebral vascular accident on Coumadin	No

HOUSE OF DELEGATES

MATERNAL DEATHS 1980

17 Maternal Deaths

para:	0	7	Age:	15 - 19	4
	1 - 3	7		20 - 24	5
	4 - 6	3		25 - 29	1
	+ 7	0		30 - 34	2
				35 - 39	3
				40 +	2

County			Autopsy
Nelson	Indirect	Died sky diving accident	No
Fayette	Direct	Repeat section, possible pulmonary embolus	No
Fayette	Direct	Eclampsia	No
Jefferson	Direct	Cardiac arrest	Yes
Jefferson	Direct	Cardiac arrest	No
Lawrence	Direct	Amniotic fluid embolus	Yes
Davis	Direct	Eclampsia	No
Hardin	Direct	Hemorrhage	No
Fayette	Direct	Eclampsia	Yes
Jefferson	Indirect	Cerebral vein thrombosis	Yes
Clay	Direct	Hemorrhage from cervical laceration	No
Barren	Direct	Cerebral vascular accident	No
Jefferson	Direct	Sickle cell crisis	No
Nelson	Direct	Possible acute pulmonary embolus	No
Fayette		Not discussed yet	No
Fayette		Not discussed yet	No
Fayette		Not discussed yet	No

how we compare with the national picture. I would say that for the years that are available, maternal mortality in the United States in absolute numbers is less than 400; that is, there were 390 deaths in 1976 nationally, and 320 maternal deaths, which is a provisional figure, for 1978. Attached to this report is a chart showing the number of maternal deaths in Kentucky from 1966 to 1982; a compilation by county of maternal deaths in Kentucky from 1979 through 1982 (figures garnered by the Committee); and a table listing the number of maternal deaths in the United States from 1935 through 1978.

In its deliberation, the Committee considers at great length the causes of maternal death and whether there is any one institution, physician or locality that seems to have a repetitive problem needing further study or action by us as a group of physicians. This does not seem to be the case. It is noted that there are more deaths in Fayette and Jefferson counties; however this

December 1984

MATERNAL DEATHS 1981

6 Maternal Deaths

Para:	0	2	Age:	15 - 19	0
	1 - 3	3		20 - 24	0
	4 - 6	1		25 - 29	3
				30 - 34	2
				35 - 39	1
				40 +	0

County			Autopsy
Warren	Indirect	Hemorrhage ruptured uterus auto accident, post mortum section done	No
Pike	Direct	Pulmonary embolus	No
Warren	Direct	Hemorrhage, ruptured ectopic pregnancy	No
Jefferson	Direct	Hemorrhage, ruptured cornual portion	No
Jefferson	Direct	Trophoblastic disease	Yes
Johnson	Direct	Ruptured ectopic pregnancy	Yes

is attributable to the fact that these are the large population areas of Kentucky and also because advanced cases are frequently referred to tertiary care units in these areas.

It is a great pleasure to work with the Maternal Mortality Study Committee, and the very diligent work of Doctor John Petry should be acknowledged because he puts many hours into compiling the material that is reviewed by the members of the Committee.

John W. Greene, Jr., M.D.
Chairman

Recommendations, Reference Committee No. 3:

Reference Committee No. 3 reviewed the Report of the Maternal Mortality Study Committee and would like to commend John W. Greene, Jr., M.D., Chairman, and John Petry, M.D., for a very thorough and timely report. We thank them for their continuing diligent efforts.

The Reference Committee recommends this Report be filed.

Report of the Committee on National Legislative Activities

The Committee on National Legislative Activities has been extremely active this year through the efforts of

HOUSE OF DELEGATES

MATERNAL DEATHS 1982

12 Maternal Deaths			
County			Autopsy
Jefferson	Indirect	Congenital heart disease	Yes
Jefferson	Direct	Cardiac arrest with Cesarean	No
Fayette	Direct	Interabdominal sepsis	Yes
Taylor		Not discussed yet	
Breckenridge		Not discussed yet	
Pike		Not discussed yet	
Jefferson	Direct	Brain stem infarction	No
Calloway		Not discussed yet	
Fayette		Not discussed yet	
Davis	Indirect	Cystic fibrosis, chronic lung disease	No
Clark		Not discussed yet	
Fayette	Direct	Hyaline membrane disease associated with abruptio placenta	No

the Key Men and through the KMA Headquarters Office. Probably the most outstanding event that took place this year was the successful effort to defeat mandatory assignment of Medicare claims for physicians. The mandatory assignment provision was defeated after two major floor votes. The successful negative vote was the result of intensive efforts by representatives from all levels of organized medicine through numerous telephone calls, letters, and personal contacts, in spite of intense pressure levied by the majority party. It is gratifying to report that all of Kentucky's Congressmen voted against the provision, and Key Men and everyone else who played a part in this process deserve a resounding vote of thanks.

Several other major issues were addressed by the Committee this year. One was the so-called "Baby Doe" provision, which provided that hospitals be coerced into reporting all incidents which involve the withholding of extraordinary life-support measures from severely handicapped infants. Regulations initially proposed by the Department of Health and Human Services were opposed legally by the AMA, and this initial step was successful. A legislative address of the issue culminated in the passage of H.R. 1904, however, which validated the Baby Doe process. Unfortunately, the legislative issue became involved with "right-to-life" concerns, which resulted in Congressional considerations aside from the Baby Doe matter. A subsequent suit brought by the AMA over regulations that preceded the

law was successful, but any additional actions on the part of Congress are unknown.

A third major issue in Congress has been H.R. 5290, which would provide for the distribution and use of injectable heroin for terminally ill patients. Discussion on this issue has continued with strong opposition from organized medicine. The use of heroin in this context is felt to be unnecessary, as other sufficient analgesics are available. If heroin is used for intractable pain as proposed, the FDA drug approval process would be circumvented, and a great concern surrounds the likely diversion of heroin for illegal purposes.

Another legislative matter which has received support by KMA is H.R. 5438, which would establish a Department of Health with a separate Undersecretary who would be a physician. The rationale for this proposal is that health issues and the Government's involvement with them from a Federal standpoint are significant enough to warrant a separate Health Department within the Federal Government. This issue is as yet unresolved.

While these few bills have been highlighted, the Committee has monitored a number of others, including:

- S. 2117 - a bill that would provide compensation for the victims of vaccination reactions;
- H.R. 5400 -a bill which would awkwardly try to address professional liability problems, but with little attention to the physician's defensive role;
- H.R. 4616 -a child vehicle seat restraint proposal;
- S. 2301 - relating to the preventive health and health services program grants.

In the area of national legislative contacts, very appropriate note should be made of the ongoing communications that KMA has been able to establish with the entire Congressional delegation. Every member of Kentucky's delegation is a strong individual, whose primary obligation is to his constituency. However, through the diligent and sincere efforts of the Key Men, KMA has been able to maintain a good rapport with all Representatives and Senators, which is of inestimable value.

The Washington Dinner and Congressional Visitation was not held this year because of the State Legislative Session, although officers and staff did make a visit to each of the Congressmen in their offices. It is projected that the Washington Dinner will be resumed during the next Associational year, and more information will be provided at a later date.

Fred C. Rainey, M.D.
Chairman

Recommendations, Reference Committee No. 3:

The Reference Committee reviewed the Report of the Committee on National Legislative Activities. We commend Doctor Rainey and the Committee for a job well done.

Reference Committee No. 3 recommends this Report be filed.

Report of the Committee on State Legislative Activities

During previous legislative years this report has been used to summarize KMA's activities during the Kentucky General Assembly. This year will be different, for shortly after the Legislature adjourned, a pamphlet styled, "Report to the Members of the Kentucky Medical Association—1984 Kentucky General Assembly," was circulated to the entire KMA membership. Even a cursory glance at the table of contents for that report is revealing; a larger "rogues gallery" would be difficult to find.

I do not intend to rehash the entire Report, although if you have not read it, I recommend it to you. You will find that we again enjoyed phenomenal good fortune, and for that we owe a vote of thanks to Bill Doll, Don Chasteen, and the other members of the KMA staff. Having followed 131 measures, we were forced to actively oppose 40—39 of which were defeated. Of the four bills we supported, three were enacted.

Those figures represent far more than a final tally or benchmark of success. If they were transposed to a barometer, all indications would be that we're in the eye of a hurricane. We may have weathered the storm getting in, but that's only half the chore. We've still got to chart a course that will take us through the other half of the storm; *ie*, the Legislative Interim and the 1986 Regular Sessions. That will not be an easy task.

Nearly all the issues from the 1984 Session will resurface, and, simply stated, you cannot expect to continue winning 39 of 40 fights. The expenditure of that sort of political energy in defensive struggles also creates very real problems when it comes to mounting an offensive legislative thrust. In such an environment, options are reduced to deciding whether or not the passage of particular proposals warrants the sacrifice en-

tailed in allowing a number of bills, which might otherwise be defeated, to pass.

Tough decisions, but those who went before us faced difficult choices too. The difference is that today the entire fabric of society is changing at a blistering pace, and nowhere do we see a more striking reflection of that change than in the health care arena. The Legislature responds accordingly; it reacts, sometimes in knee-jerk fashion, to this burgeoning desire to "rebuild the system."

Whether we like it or not, we're a part of that process and we have to deal with it as effectively as we can. That involves the devotion of endless hours of staff time and effort and a corresponding sacrifice by KMA leadership. It also calls for activation of our Key Man System and the continuing contact with Legislators necessary to its operation. Those are the obvious things, and without them, we cannot succeed.

But there are other, more subtle matters with which the entire membership can involve itself and produce substantial benefit. These are simply things we have all heard about, but frequently forget; things to enhance the interpersonal relationship between physician and patient. These are the folks who make up a politician's constituency. If they walk away from your office feeling chagrined, irate, or as if they received little value for the monies they've expended, they're apt to make those feelings known. On the other hand, if they feel you were genuinely attentive and concerned, the reaction is vastly different. Think about it. . . I believe we'll all benefit as a result.

Carl Cooper, Jr., M.D.
Chairman

Recommendations, Reference Committee No. 3:

The Reference Committee reviewed the Report of the Committee on State Legislative Activities, and we commend Doctor Cooper and the State Legislative Committee for a job well done. We would like to urge more continuing local involvement by physicians in the political and legislative processes.

Reference Committee No. 3 recommends this Report be filed.

Report of the Committee on Impaired Physicians

The Committee on Impaired Physicians met routinely this year six times, as well as having several informal

HOUSE OF DELEGATES

meetings among members of the Committee to deal with specific cases. The Committee's goal remains unchanged. It is to help brother physicians with impairments to realize and come to grips with their problems, seek proper treatment, and be actively involved in their aftercare and recovery.

In this role, the Committee also seeks to act as an advocate for physicians to the Board of Medical Licensure and other agencies that do not have compassionate obligations.

As has been reported previously, the Committee is divided into subcommittees to deal with administrative concerns. These subcommittees are: Liaison with the Auxiliary to KMA, Liaison with the Board of Medical Licensure, Liaison with the Medical Schools, Speakers' Bureau, Publicity, and Aftercare.

The Committee is ably represented in its liaison with the Auxiliary through Mrs. Barbara Cox. Mrs. Cox has worked diligently with the Auxiliary in helping to develop meetings and secure speakers, and has traveled extensively over the state in the Committee's behalf. In addition, she routinely makes contact with nonphysician personnel in various administrative capacities in hospitals, and works directly with spouses of the impaired physicians who are involved with the Committee.

Liaison with the medical schools has continued this year, and it is noted with gratification that dedicated curriculum hours on the subject of impairment have increased in a coordinated fashion at the University of Kentucky. The Committee was pleased to meet with representatives of the University of Louisville also this year, and to learn that coordination of dedicated hours is also increasing at that school. Realizing the difficult task medical schools face in devoting academic hours to subjects that are not part of the core curriculum, the Committee nevertheless urges both medical schools to give greater attention to this issue.

The Board of Medical Licensure has initiated increased disciplinary activities this year. While the Committee has no sanctionary authority and does not seek any, its efforts often coincide with those of the Licensure Board. Because of these mutual interests, the Licensure Board has assumed an informal but routine policy of referral of physicians with impairments to the Committee. Likewise, the Committee continues to serve as a strong advocate to the Licensure Board for those physicians with impairments whose licenses are, or may become, jeopardized. The sensitive nature of the Committee's work sometimes makes communications difficult, but it is important to note an increasing rapport

with the Board of Medical Licensure that greatly assists the Committee in its work.

In the area of publicity, the Committee has been fortunate in securing regular space in the *KMA Journal*, as well as regular announcements in both the Jefferson and Fayette County routine bulletins.

Committee members had numerous speaking engagements this year before county medical societies, hospital medical staffs, and specialty groups. If the assumption is correct, the number of engagements indicates an increasing concern with substance abuse among physicians, and this is certainly appropriate. Aside from speaking engagements conducted by solicitation of individual Committee members, some 30 discussions were scheduled through the Committee.

To assist in spreading the Committee's message, a film was purchased this year, "My Brother's Keeper," which has seen some effective use. Additionally, the Committee has purchased a number of copies of a book, "Getting Them Sober," which is directed to spouses and families of individuals with impairments. Anyone interested in scheduling a discussion or using the film is urged to contact any Committee member or the KMA Headquarters.

Identification and acute treatment of substance abuse impairments are obviously crucial. Of equal importance is ongoing recovery or aftercare. The Committee has used an aftercare contract, which is a moral document agreed to by the recovering physician and the Committee. By means of the contract, the recovering physician agrees to various activities, and the Committee agrees to assist him, as well as act as his advocate. To supplement this contract, a similar contract was developed for aftercare supervisors which also requires a moral commitment on their parts. This is augmented by aftercare sponsor guidelines, which the Committee also created.

Committee members attended a number of conferences throughout the year, primarily as individuals and because of personal interest, as well as formally representing KMA and the Committee at two national conferences.

A final step in the Committee's process of working with impaired physicians involved concerns ancillary to the actual impairment. Very bluntly, physicians with impairments often have financial difficulties for which they need at least some interim assistance. For this reason, the Committee considered the possibility of developing a benevolent fund through the Association, and investigated similar efforts across the country. A

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

recommendation to develop such a fund has been made to the Board of Trustees, and the House of Delegates will be asked to address this matter directly.

For purposes of explanation, the Committee did not feel that the fund should have any hard and fast guidelines regarding specific types of situations for which the fund could be used, nor should it be restricted only to physicians with impairments and their families. Rather, it was felt that the fund should be available to any member with problems that required some benevolent consideration by the Association.

In the same area, the Committee has determined that insurance coverage through the KMA Blue Shield group plan does apply for treatment of alcoholism and drug abuse, and generally is adequate for the routine course of treatment for these afflictions.

No figures are made available about the number of individuals that the Committee has worked and is working with. Statistical studies may be interesting and even helpful, but the Committee has no concern with numbers. Each individual situation must be addressed separately, because each situation involves an individual. The members of the Committee have made a commitment of fraternal concern to help each individual that the group becomes involved with. The Committee's experience has provided an opportunity for growth and maturity as a group but, most importantly, has intensified concern for impaired physicians.

As Chairman, it is my prerogative to publicly thank all of the members of the Committee for their dedicated and intense efforts. I can only assume that prerogative by noting that "thanks" is an inadequate word.

David L. Stewart, M.D.
Chairman

Recommendations, Reference Committee No. 3:

Reference Committee No. 3 reviewed the Report of the Committee on Impaired Physicians. We want to commend Doctor Stewart and his Committee for their continuing involvement with impaired physicians.

The Reference Committee recommends this Report be filed.

Report of the Committee on Long-Term Care

The Committee on Long-Term Care witnessed little activity this year, primarily because of the continued moratorium on construction of long-term care beds. This moratorium was placed by the Brown Administration

and remains in effect, even though the long-term care census remains uniformly at 100% across the state.

As medical care expenditure trends evolve, it is apparent that increasing resources are devoted to long-term care. Equally obvious is that long-term care is developing into a social phenomenon, rather than a medical problem. Because the long-term care issue initiated in the medical arena, financial resources for medical care are directed to long-term care facilities. The average long-term care facility stay is two years, so the financial equation is apparent.

Efforts are being made by State Government and other payors to seek alternatives to long-term care, such as home health care, in an attempt to "revitalize" medical care finances and place long-term care in a social perspective, where it might rightly belong.

Robert E. Smith, M.D.
Chairman

Recommendations, Reference Committee No. 3:

Reference Committee No. 3 reviewed the Report of the Committee on Long-Term Care. The Reference Committee feels more work could be done to identify the needs of patients in long-term facilities; the availability of beds may be a factor, as well as the possible need for the establishment of criteria for the quality of care given. The Reference Committee recommends that the Committee on Long-Term Care address these potential concerns.

Reference Committee No. 3 recommends this Report be filed, and the recommendation of the Reference Committee be adopted.

Resolution F **Board of Trustees** **KMA Benevolent Fund**

WHEREAS, the Kentucky Medical Association was established to promote the art and science of medicine, but also has fraternal obligations; and

WHEREAS, such fraternalism implies a responsibility to protect and further the benevolent concerns of its members; and

WHEREAS, a mechanism is needed to address those concerns by some tangible means; now therefore be it

RESOLVED, that a Benevolent Fund be established to provide financial assistance for needy members and/or their families when it can be substantiated that funds from other sources are not available; and be it further

HOUSE OF DELEGATES

RESOLVED, that this Fund would acquire assets through voluntary assessment of the membership, and donations from individuals, organizations and other interested groups; and be it further

RESOLVED, that financial assistance provided by the Fund would be a loan to be repaid when appropriate; and be it further

RESOLVED, that the Trustee of the Fund would be the Executive Committee of the Board of Trustees, but that the Committee on Impaired Physicians be responsible for screening requests and making recommendations for any disbursements.

Recommendations, Reference Committee No. 3:

Reference Committee No. 3 reviewed Resolution F, KMA Benevolent Fund, introduced by the KMA Board of Trustees. After discussion, the Reference Committee felt this resolution has merit and recommends it be adopted.

Resolution T Jefferson County Medical Society Professional Liability Reform

WHEREAS, there is a continuing attitude of courts to freely hear malpractice suits without due regard to the merits of the case; and

WHEREAS, juries continue to allow incredibly high awards against physicians, going far beyond the actual loss suffered; and

WHEREAS, the law continues to be predisposed against physicians who desire to countersue for malicious prosecution after a malpractice suit has been determined to be frivolous; and

WHEREAS, all of these factors contribute to the filing of liability suits simply for personal gain, and simultaneously drive up the cost of medical care and professional liability insurance; and

WHEREAS, the Kentucky Medical Insurance Company has addressed these problems vigorously by sponsoring risk management seminars and other educational efforts, and has formed a task force to investigate possible approaches to professional liability reform in Kentucky; now therefore be it

RESOLVED, that the Kentucky Medical Association commend the Kentucky Medical Insurance Company for its educational efforts in the area of risk management; and be it further

RESOLVED, that because the dynamics of the legal climate serve to exacerbate the professional liability problem, serious consideration should be given to legislative remedies, such as those enacted in Indiana and Louisiana; and be it further

RESOLVED, that additional consideration be given to the possibility of a State constitutional amendment, such as that proposed by the Florida Medical Association, or other innovative efforts designed to avert the rapidly approaching professional liability crisis.

Recommendations, Reference Committee No. 3:

Reference Committee No. 3 reviewed Resolution T, Professional Liability Reform, introduced by the Jefferson County Medical Society, and recommends that the words, "Indiana and Louisiana" in the second "Resolved" be changed to read, "other states," and that the phrase, "such as that proposed by the Florida Medical Association," be deleted from the third "Resolved," so that the second and third "Resolved" sections would read as follows:

"RESOLVED, that because the dynamics of the legal climate serve to exacerbate the professional liability problem, serious consideration should be given to legislative remedies, such as those enacted in other states; and be it further

"RESOLVED, that additional consideration be given to the possibility of a State Constitutional Amendment or other innovative efforts designed to avert the rapidly-approaching professional liability crisis."

Reference Committee No. 3 recommends the adoption of Resolution T, as amended.

Resolution Y Campbell-Kenton County Medical Society Catastrophic Illness

WHEREAS, physicians should be equipped with the determination and knowledge to help their patients in catastrophic conditions, as well as in their routine lifestyles, now therefore be it

RESOLVED, that the KMA petition our Federal and State legislators to establish a commission involving the government and private sector to develop guidelines for the detection and treatment of injuries sustained from nuclear, chemical or biological exposure, whether such exposure be due to warfare or accident.

HOUSE OF DELEGATES

Recommendations, Reference Committee No. 3:

The Reference Committee reviewed Resolution Y, Catastrophic Illness, introduced by the Campbell-Kenton County Medical Society. The Committee feels there are already adequate national guidelines and existing plans, including those developed by the military, for the detection and treatment of such injuries.

Reference Committee No. 3 therefore recommends the rejection of Resolution Y.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 3 as a whole.

Mr. Speaker, I want to thank the members of Reference Committee No. 3 who diligently considered the issues that were presented to us. They are John A. Gergen, M.D., Frankfort; David C. Liebschutz, M.D., Danville; Sally S. Mattingly, M.D., Lexington; and Lolita S. Weakley, M.D., Louisville. I also want to personally thank Doris Crume for her assistance in the preparation of this Report.

Reference Committee No. 3

Veryl F. Frye, M.D., Somerset, Chairman

John A. Gergen, M.D., Frankfort

David C. Liebschutz, M.D., Danville

Sally S. Mattingly, M.D., Lexington

Lolita S. Weakley, M.D., Louisville

Report of the KEMPAC Board Chairman

Mr. Speaker, Delegates and Guests,

As chairman of the KEMPAC Board of Directors, I thank you for this opportunity to report on KEMPAC's activities this past year.

KEMPAC contributed \$17,350 in the Primary to candidates for the Kentucky General Assembly and AMPAC contributed \$22,500 to candidates for the U.S. Congress. \$11,500 has been contributed by KEMPAC to candidates for the Kentucky General Assembly in the General Election with AMPAC contributing \$17,500 to Kentucky candidates for the Congress of the United States.

KEMPAC and AMPAC have enjoyed a very good year on both the state and national legislative levels. You can get an indication of the level of accomplishment in the Kentucky General Assembly by reviewing the "Report to the Members of the Kentucky Medical

Association" regarding our most recent legislative session. This report has previously been circulated to the KMA membership and has been mentioned already tonight. Of the 40 pieces of legislation that we were forced to oppose, 39 were ultimately defeated and of the four bills supported, three were passed.

KEMPAC and AMPAC are not involved in legislative matters, but I would like for all of you to recognize the close relationship between candidate support and legislative success.

KEMPAC and AMPAC have good records of solid political accomplishment on a bipartisan basis. PAC membership affords you an opportunity to become a part of this political action.

The membership in KEMPAC is 975, including 157 Sustaining members. Kentucky ranks fifth in the nation.

Of the 230-235 delegates listed before this meeting, our records show that only 73 of you are KEMPAC members. I feel 100% of the House of Delegates should be members of KEMPAC and AMPAC.

In 1983, as in past years, the KMA House of Delegates reaffirmed its belief in the objectives of KEMPAC and AMPAC and recommended a vote of endorsement and encouragement of the KEMPAC organization to continue its worthwhile political efforts on behalf of our free enterprise system and the freedom of medical practice.

I move the House of Delegates reaffirm this endorsement and approve KEMPAC/AMPAC billing with the KMA 1985 dues billing so that you may include your contribution when sending in your other dues.

(The motion was seconded from the floor and carried.)

On behalf of the KEMPAC Board I wish to thank the Delegates, the KMA Board of Trustees, the Auxiliary, and the KMA staff for your help and support.

James S. Brashear, M.D.

Winchester

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 4

Reference Committee No. 4 considered the following Reports and Resolutions:

28. Report of the President, Blue Cross and Blue Shield
 29. Report of the Committee on Medical Insurance and Prepayment Plans
 30. Report of the Committee on Claims and Utilization Review
 31. Report of the Coordinating Commission on Peer Review Activities
 32. Report of the Committee on Health Care Costs
 33. Report of the Committee to Investigate Changing Trends in Medicine
- Resolution N - Business Coalition (Campbell-Kenton County Medical Society)
- Resolution R - Contractual Arrangements and Patient Choice (Jefferson County Medical Society)
- Resolution W - Blue Cross and Blue Shield Preauthorization Program (Mercer County Medical Society)
- Resolution AA - Preadmission Review and Preferred Provider Services (Fayette County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 4 reviewed the following items and recommends they be filed as indicated, by the consent of the House, without discussion:

28. Report of the President, Blue Cross and Blue Shield - filed
29. Report of the Committee on Medical Insurance and Prepayment Plans - filed
30. Report of the Committee on Claims and Utilization Review - filed
31. Report of the Coordinating Commission on Peer Review Activities - filed
32. Report of the Committee on Health Care Costs - filed

Report of Blue Cross and Blue Shield of Kentucky, Inc.

This report provides the Kentucky Medical Association House of Delegates with a status of Blue Cross and Blue Shield activities.

The Plan is operating in a highly volatile marketplace. Recent events, both locally and nationally, have had significant impact on the financing and delivery of health care. These events include the Federal Government's implementation of a new reimbursement system for Medicare beneficiaries (DRGs), increased emphasis on cost containment, new competitors in the health care industry, and a movement in health benefits from first-dollar (full payment) coverage to more cost sharing by the contract holder. All of the above conditions have affected the Plan, providers and the general public.

The Plan remains strong, both financially and in the marketplace. The corporation's contingency reserves as of June, 1984, represent 2.52 months of average benefit and operating costs. Currently, we have 1,267,281 members enrolled, representing 34.6% of Kentucky's population.

In 1983, claims' payments for both private and government business increased to \$1.2 billion. The Plan's private business reimbursed all providers of health care more than \$539 million, including \$192 million for professional services. As fiscal intermediary for Part A of Medicare, the Plan reimbursed providers \$518 million for services rendered to Medicare beneficiaries, and for Part B of Medicare, the Plan reimbursed providers for professional services over \$138 million.

The Usual, Customary and Reasonable benefits program continues to be strong in the marketplace. With over 540,000 members covered by the UCR benefits programs, payments for UCR services in 1983 exceeded \$67 million. Accounts are continuing to request a change in the design of benefits from full to percentage UCR programs. These changes are being made by the group to make the members more aware of the cost of health care, and through the sharing of these costs, to become more prudent in the use of health services. As a result of the new benefit design, a new Participating Physicians Agreement was developed in early 1983. The new agreement applies to both full and percentage UCR certificates while using the same administrative procedures, including fee profiles. More than 78% of the physicians practicing in Kentucky have signed the new agreement.

The Plan is currently involved in several activities

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

which will impact on the financing and delivery of health care in Kentucky, in general, and the physicians, in particular. Some of the major activities are as follows:

- The Plan recently submitted a bid for the continuation of the contract for the employees of the State and Boards of Education. The bid specifications for several benefit options all focus on cost-sharing programs. The bid also contains the cost containment provisions that were included in past contracts.
- The Provider Communication Network (PCN) is our paperless processing system that will accept claims from providers through tape-to-tape, CPU-to-CPU and CATHODE ray tubes. The Plan has intensified efforts to market PCN during the last year. There are now 58 hospitals and 98 physicians' offices and/or clinics submitting private or government business through this system. It is anticipated that the program will continue to grow in the future.
- Guidelines for respiratory therapy, a phase of the national Medical Necessity Program, have been implemented in Kentucky as of July 1, 1984. They were developed with input from various medical specialty societies and were sent to all hospitals in the state.
- Another phase of the Medical Necessity Program has been announced nationally and will be implemented in Kentucky in early 1985. The new phase involves guidelines for diagnostic imaging, which have been sent to the appropriate KMA committees for their review and comments prior to implementation.
- The Plan is in the process of developing an integrated membership and billing claims processing system. When fully operational, this system will permit the Plan to process claims more efficiently and eliminate the need for several claim forms. This is an enhancement for the Plan and is scheduled to begin in December, 1984.
- The Pre-Admission Certification Program (Assurance Plus) has been expanded statewide. This cost containment program continues to be the most requested program by major groups. The key element in the program is to determine the appropriateness of the admission to establish an expected length of stay based on medical cri-

teria. The program applies to all elective admissions and excludes maternity, emergency, and psychiatric cases. Over 20 groups have already added this feature to their health benefits package.

- In response to the demands of the marketplace, the Plan is developing a Preferred Provider product. This program will be offered to groups as an alternative to the traditional package currently available.
- The Plan has advised its member hospitals that effective with requests for rate increases after July 1, 1984, there are revisions to the hospital reimbursement principles. The revisions include a provision designed to moderate the rate of increase of hospital charges, to eliminate minor charge increases, and to include the Pre-Admission Certification program.
- The Plan initiated an office surgery experiment program on April 1, 1984, for all physicians throughout Kentucky. The purpose of this experiment is to reimburse physicians for the cost of supplies for a limited number of surgical procedures performed in a physician's office.

The primary focus on all of the above activities are the issues relating to cost containment. Cost containment is the most important item on the minds of employer groups, legislators, regulators and the general public. The continuing rise in health care costs has brought increased pressures on all segments of the health care industry to exercise restraint. Accounts are demanding that efforts be made to better contain health care costs, and are requesting more data to assist them in analyzing which providers are most cost effective. The future of the health care system rests with efforts by providers, insurers and the public working together to restrain cost increases.

Blue Cross and Blue Shield of Kentucky is committed to work with providers to ensure the continuation of affordable health care and, at the same time, to develop comprehensive benefit programs that respond to the demands of the marketplace.

G. Douglas Sutherland
President

HOUSE OF DELEGATES

Report of the Committee on Medical Insurance and Prepayment Plans

The Committee held three meetings this year: December 1, 1983, April 11, 1984 and June 26, 1984.

Blue Cross and Blue Shield KMA-Endorsed Plan

One of the major items the Committee discussed was the KMA-endorsed Blue Cross and Blue Shield program. Representatives of Blue Cross and Blue Shield were on hand and reported on KMA's group experience for both high and low option plans. As the House may recall, two years ago the high option was a Usual, Customary and Reasonable coverage, full semi-private room coverage with Major Medical coverage up to \$250,000. The low option was different from the high option only in that physician reimbursement was based on Schedule D.

Utilization of the plan had resulted in substantial rate increases which led the Board to change the low option plan to a Major Medical Comprehensive coverage with a front-end deductible of \$300 per family member and an 80/20 co-payment.

Last year, the high option was also changed to a Major Medical Comprehensive coverage with the first \$2,000 being paid in full. After a \$100 deductible, 80% of the next \$6,000 is covered, followed by full payment from that point on up to \$1 million. The low option was amended to a \$100 deductible with a \$300 family maximum and 80/20 co-payment with a \$5,000 stop-loss.

While experience in the group in 1983 was good, the size of the group had been reduced substantially. In 1981, KMA had 1,045 contracts in the high option (UCR) plan and 1,805 in the low option (Schedule D). In 1982, the number of high option contracts (UCR) was 1,581, but the number of low option contracts dropped to 585.

In October of 1983, the high option contracts had dropped to 886 and the low option to 526. Obviously, many members are continuing their UCR coverage outside the KMA plan.

Experience in the low option was fairly stable, with a slight increase in inpatient admissions per thousand and a slight increase in the average inpatient cost per day. The average lengths of stay decreased somewhat over 1982 and outpatient claims costs more than doubled from \$13,367 in 1982 to \$27,523 in 1983.

In the high option, admissions per thousand rose

substantially from 384 in 1982 to 481 in 1983. Inpatient average cost per day rose slightly, while the average cost per case for inpatients was \$1,846.69 in 1982 and \$2,179.63 in 1983. Inpatient average length of stay increased in 1983 over 1982 as did outpatient claims cost.

It is the Committee's hope that the plans recommended for endorsement by KMA for our membership meet the overall protection requirements of our members at a reasonable premium level. The Committee would welcome comments from the membership concerning our coverage.

Direct Payment Services Covered By Major Medical Plans

Last year, the House passed Resolution I calling for KMA to encourage Blue Cross and Blue Shield to offer direct payment to physicians for services performed which are covered by Major Medical and for KMA to support Blue Cross and Blue Shield if it should approach the Commissioner of Insurance to allow needed changes in Major Medical certificates in order to make assignment of Major Medical benefits more widely available. Our encouragement of Blue Cross and Blue Shield to amend its contracts has been voiced to its representatives at each meeting we've had this year. Currently, Blue Cross and Blue Shield has not chosen to attempt to amend its contract language to allow for direct payment of Major Medical claims, but has indicated that there is a definite trend toward the replacement of indemnity contracts by either UCR or percentage UCR contracts. There is a significant effort being made by Blue Cross and Blue Shield to bring indemnity subscribers into Comprehensive Major Medical types of plans which do allow for direct payment of Major Medical type claims. It's been reported that if assignment is done automatically, it will result in an increase in both the cost of claims processing and experience; thus, the premium rate will also increase because a significant number of people do not now file Major Medical claims.

In addition, administrative costs for processing Major Medical claims are considerably higher than the administrative costs for basic certificate benefits. This increased cost is due to determining the deductible and co-pay features, the number and various types of providers of service, the differing format of itemized bills, the potential for duplication of charges, the increased amount of manual processing, and the necessity for larger amounts of support data. Blue Shield represen-

HOUSE OF DELEGATES

tatives have indicated that they feel the intent of the Resolution would be met as the Blues move toward a Comprehensive Major Medical program and try to phase out the current indemnity schedules.

Reimbursement Policy

The House of Delegates also passed Resolution P last year which was referred to this Committee. The Resolution addressed the issue of the position KMA should take in its policy of support for a given method of reimbursement. KMA is currently on record as favoring UCR as the preferred method of reimbursement, although there appears to be growing support for a return to an indemnity-based reimbursement system as the favored method. The current AMA policy is that the Association establish as a policy a preference for a pluralistic approach to third party payment methodology under fee for service, and not to support a preference for UCR or any other specific payment methodology. We continue to monitor this issue at the local and national levels.

Office Surgery Experiment

The Committee heard a report on an experimental program which will give incentives to physicians to perform certain procedures in their offices rather than in an outpatient surgical facility. Ten procedures have been identified and, if performed in a physician's office, the physician will receive the full usual fee for the procedure. In addition, there will be a \$20 incentive paid for each in-office procedure to cover overhead or supplies. These payments will be made on a quarterly basis.

Blue Shield feels that the only significant savings resulting from procedures done in an outpatient surgery center is the hospital room charge. Other costs are very similar to hospital charges and they are attempting to reduce some of those costs by having the procedures done in a physician's office. Blue Shield will report the progress of this experiment at the interim meetings of this Committee.

UCR Participating Physician List

Blue Shield representatives reported that many companies which have UCR contracts have requested a list of participating physicians. In the past, this information has not been released by the Blue Cross and Blue Shield Board. However, in February, the Blue Cross and Blue Shield Board established policy where it would now

make that information available to companies upon request.

State Employee Health Plan Cost Containment Activities

The Committee heard an extensive report on the status of the cost containment activities which were added as a part of the State Employee Blue Cross Blue Shield plan. As of the fourth quarter of 1983, 29 hospitals were participating in the Assurance Plus Program, the Blue Cross Blue Shield pre-admission certification plan. Effective January 1, 1984, all 113 hospitals were included in the Assurance Plus Program. According to Blue Shield, the cost of the pre-admission certification program for the state health group had been approximately \$100,000, but it had resulted in savings of approximately \$700,000. Part of the state employee plan calls for payment for hospitalization days to be denied if a patient was hospitalized for more than one day before surgery was performed without substantiation for the necessity of the delay in performing surgery. \$98,400 in claims was denied under the program which resulted in patients being held responsible for that amount.

The 24-48 hour maternity program provided incentives for 16 mothers to leave the hospital within 24 hours after delivery which resulted in a \$4,800 savings. This was out of a total of 1,500 maternity claims. 120 mothers left the hospital within 48 hours after delivery saving \$22,655. According to Blue Shield there were no problems reported.

In the second surgical opinion program, there were 1,900 claims for second opinion consultations, but only two conflicting opinions. \$70,500 was paid out for second opinion consultations. The program also reduced payments by \$90,988 because patients failed to obtain required second opinions. Blue Cross Blue Shield is monitoring patients who did not have surgery because of the second opinion to see whether or not surgery is eventually performed.

Ambulatory surgery utilization rates under the state plan showed a trend toward a change in the location where surgery is performed. In 1982, 222 inpatient hernia repairs were performed at a cost to Blue Cross of \$300,759. In 1983, 143 hernia repairs were done on an inpatient basis at a cost of \$196,407. In the same time period, the number of outpatient hernia repairs increased from 24 cases at a total cost of \$7,881 in 1982 to 31 cases at a total cost of \$22,409 in 1983.

Inpatient D & C's dropped from 532 cases in 1982

HOUSE OF DELEGATES

at a cost of \$454,441 to 221 cases in 1983 at a cost of \$188,809. At the same time, outpatient procedures increased from 119 in 1982 at a cost of \$74,018 to 436 cases in 1983 costing \$208,010.

The number of tonsillectomies (with or without adenoidectomies) done on an inpatient basis in 1982 totaled 289 at a cost of \$225,318. In 1983, 141 cases were done on an inpatient basis at a cost of \$92,246. In 1982, Blue Cross had only one claim for outpatient T & A, but in 1983, 36 T & A procedures were done on an outpatient basis. The Committee wishes to re-emphasize its continued opposition to tonsillectomies and adenoidectomies and hernia repairs being mandated on an outpatient basis.

Kentucky Blue Cross and Blue Shield Preferred Provider Product

A major part of two of the Committee's meetings was devoted to a discussion of the Kentucky Blue Cross and Blue Shield preferred provider product. This new arrangement is being introduced in an effort to respond to the marketplace's demand for lower and predictable costs. The Committee was told that it had not been uncommon for Blue Cross and Blue Shield to deliver a rate increase of 5 to 50% each year for the past few years. As a result, payers of those premiums were undertaking a number of activities to try to reduce those benefit costs.

Other providers are also developing preferred provider plans in an effort to restrain the rate of increase in health cost and offer greater premium predictability.

Current programs reimburse hospitals based on their actual costs. Because of significant cost shifting from Medicare, Medicaid and other programs which do not pay their full cost of services provided, there is a significant cost shift to Blue Cross. Blue Cross has identified an average cost per case for each community hospital over the state. They found that prices for the same service vary radically from community to community and hospital to hospital.

As a result, hospitals that desire to participate in the program will be asked to discount their charges to reflect the average case costs for a community. If a hospital contracts to participate in the preferred program they will accept reimbursement based on that average for the community as determined by Blue Cross. If they choose not to participate in the program, the patient enrolled in the new coverage will be required to pay significant out-of-pocket expenses if he or she enters a hospital which has not contracted with Blue Cross.

The goal of the program is to offer a rate below the current traditional benefit level, and to try to guarantee that the premiums will not increase more than a specified percentage over a two-year period. The rate of increase will be based on an inflation rate developed from a national indicator.

Hospitals will be at risk for diagnostic admissions and patients participating in the program must have admissions certified in advance through the Blue Cross and Blue Shield Assurance Plus program. The plan will begin in Louisville and will be expanded to Lexington and Northern Kentucky when possible. It was noted that the state is interested in the program for state employee coverage and that a number of other large groups have expressed interest in the program.

Accounts who enroll in the program will be directed to the providers who contract to participate. A list of hospitals and physicians who contract will be made available to those groups. If patients go to the contracting hospitals and physicians, their bill will be paid in full; however, if they go to a non-contracting doctor or hospital, they can expect to pay a minimum of 25% of the cost out of pocket.

Physicians who elect to participate in the program will be reimbursed on a UCR basis as they are now. Physicians will not be asked to discount fees as is the practice in other preferred provider organizations. The plan is previewing several options. Physicians may be asked to freeze fees for one year, limit future increases to some sort of a physician component of a major economic indicator (the indicator has not yet been established), agree to have all admissions preauthorized, and to participate in concurrent utilization review. Although an amendment to current UCR participating physicians contract was originally considered, that is not now in the current thinking. A physician who has signed a participating agreement to participate in the UCR program may elect to participate in the preferred provider program if he or she so chooses without signing a new contract.

It was noted that there is much dissatisfaction over cost in the marketplace today and that many companies have found that self insurance is too costly. Blue Cross and Blue Shield feels that any program which attempts to control cost and to guarantee some sort of predictability with regard to premiums will be widely accepted. The Committee felt that the concept of the program has some merit in that it attempts to address the health cost issue. However, we are concerned that it might interfere with the patient's freedom of choice of physician

HOUSE OF DELEGATES

and hospital. Further, the economic indicators, which will be used to determine the annual allowance increases in fees and insurance premiums and other health care costs, have not been identified. The Committee will continue to monitor the development of the program and report back to the House and Board in a timely fashion.

Diagnostic Imaging Guidelines

It has been reported that the Blue Cross Association has developed guidelines on diagnostic imaging. These guidelines have not been put into effect in Kentucky, and KMA has been asked to review them and make recommendations back to Kentucky Blue Cross and Blue Shield. We have asked that the Executive Committee of KMA refer these guidelines to the appropriate members of the Interspecialty Council for their consideration.

HMO/PPO Penetration in Kentucky

The Committee heard a report on the penetration of alternate delivery systems, specifically HMOs and PPOs in Kentucky. Health America is the largest HMO in Kentucky. It is investor owned and has HMOs in Louisville and Lexington. Health America has undertaken an extensive advertising and enrollment campaign in those areas. Northern Kentucky is seeing the development of several alternate plans as well. The Jefferson County Medical Society is developing an individual practice association in Louisville and is now soliciting members. A similar IPA has been developed by the Cincinnati Academy of Medicine and apparently did very well in its first year of operation. Plans are being made now for that operation to move into Northern Kentucky.

PPOs are the fastest growing organizations throughout the state. Humana has developed a preferred provider product as has Baptist Hospital. However, Humana is by far the more aggressive of the alternate delivery systems in the state. One offshoot of the PPO movement is that commercial insurers are now developing hospital contracts. This has not been done in the past. In addition, the Committee heard a report on an HMO in Northern Kentucky which has been developed by an insurance broker who represents a number of commercial companies. The HMO is an option which can be sold to commercial carriers as an alternate coverage for individuals who choose not to purchase traditional coverage.

PPOs have been developed, for the most part, by

providers. The penetration of the marketplace has been relatively small, although there is evidence that PPOs and HMOs are gaining significant acceptance among the payor community.

The Committee urges that caution be undertaken by physicians if contracting to participate in any alternate delivery system. Physicians are urged to carefully read and evaluate contracts and may want to consult with their personal attorney to be sure they totally understand the requirements of the contract.

Physician DRG Oriented System

The Committee discussed the recent changes in the Medicare law which provided for a hospital reimbursement system based on a prospective pricing system utilizing diagnosis related groups. Congress has asked that a study be made of the feasibility of developing a similar system for reimbursement of physicians under Medicare. In addition, Kansas Blue Cross and Blue Shield has implemented a physician-based DRG payment, and New Jersey has the oldest all-payor DRG-based reimbursement programs in the country. As a result, the committee felt that KMA should begin to develop some policy guidelines in the event a physician-based DRG system is implemented.

After considerable discussion, the following concepts were developed.

1. Any physician reimbursement system utilizing Diagnosis Related Groups as the basis for payment must preserve freedom of choice of physician and reserve the right of the physician to choose what patient he or she will treat in non-life threatening situations.
2. Prevent any interference in continuing care or quality of care or any interference in doctor/patient relationship.
3. Physicians should be equitably compensated for skill, time, and level of training utilized for rendering care for any specific diagnosis including complications and secondary diagnosis.
4. Assurance that patients receive all necessary care (quality care), keeping in mind that proper use of ancillary services be made. Determining the quality of care shall remain the domain of the medical profession.
5. Physicians should be involved when and if fee schedules are negotiated.
6. All third-party payors should be mandated to pay claims within a 30-60 day time frame after

HOUSE OF DELEGATES

claim is appropriately filed or pay interest on the amount due.

7. All fee schedules should be reviewed and updated annually by a percentage not less than the annual growth rate and inflation rate or consumer index.
8. Provisions for those individuals who have unusual problems which complicate health care delivery and result in increased costs should be made.
9. Any reimbursement system should appropriately provide compensation for cognitive services.

The Committee feels it appropriate for the House to consider these principles, amending them as necessary, with the understanding that KMA remains opposed to a DRG-based reimbursement system for physicians, but feels it appropriate to be prepared should any effort be made either nationally or locally to implement such a program.

As Chairman of the Committee, I would like to express my appreciation to the members of the Committee who have given so unselfishly of their time and to representatives of Kentucky Blue Cross and Blue Shield, particularly Fred Compton, Vice President, for his availability to the Committee

Earl P. Oliver, M.D.
Chairman

Report of the Claims and Utilization Review Committee

The Claims and Utilization Review Committee met quarterly this year and reviewed approximately 100 claims. All claims reviewed by the Committee are considered on appeal from district committees, which remain active and effective. Many district peer review committees have expressed concern about the frequency with which claims are appealed to the state Committee. The state Committee is quite sensitive to these concerns, but at the same time, recognizes the necessity for the appeals process.

Fee review was reinstituted this year, at the direction of the Board of Trustees, after judicial interpretation of orders issued by the Federal Trade Commission relating to medical society review of fees and price fixing. Based on this analysis, KMA and several other states resumed fee review, but with altered guidelines. Prior to FTC involvement in medical association activities, fees were

reviewed and recommendations made by peer review committees on appropriate charge levels. The revised guidelines adopted by KMA, however, avoid specifying a dollar amount for reasonable fees.

The specific guideline that was adopted is as follows:

"In rendering their advice, committee members will be guided by their medical expertise, training and experience, by the unique facts of each case before them, and pertinent Principles of Medical Ethics of the American Medical Association as described in the Current Opinions of the Judicial Council of the American Medical Association.

"In hearing fee disputes, it shall not be the purpose of the committee to establish, nor shall the committee follow, any schedule of minimum or maximum fees for particular services."

Notwithstanding the resumption of fee review, the bulk of review this year consisted of appropriateness of care, necessity of hospital admissions, and claims involving drug prescriptions. It is gratifying that carriers still depend on the Medical Association and external medical expertise for considering appropriateness of care questions. Necessity of admission questions, to a large extent, have direct relationship to contractual specifications that provide extensive outpatient coverage. Increasing direction to outpatient settings for service delivery is a trend not only of governmental medical programs, but obviously of commercial health insurance.

The most distressing area of review to the Committee members was a large number of prescription drug cases. While the cases were referred to the Committee because of questions of appropriateness of care and for claims payment purposes, the degree of prescriptions for controlled substances to given patients is alarming. As practitioners, the Committee members are aware of situations where there are "problem patients" whose high consumption of controlled drugs is being monitored or controlled by the physician. There are also situations where prescriptions are abused by patients and unwittingly repeatedly refilled by pharmacists. However, the Committee saw several cases this year where there was little apparent justification for individual patients receiving the number and dosage of controlled drugs indicated in the records.

On this latter group of claims, when there was no input for the attending physician, and based only on the information available in the records, the Committee made referrals to the Board of Medical Licensure. While

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

the Committee does not want or seek any punitive authority, without any information supplied by the attending physician, there is little choice in such questionable instances but to make referrals to the Medical Licensure Board. With regard to such claims, the Committee very urgently requests the cooperation and assistance of attending physicians so that questions can be resolved without referral.

Service on the Committee is sometimes tedious, and most often thankless, but I would like to express my sincere appreciation to the members for all their efforts.

K. Thomas Reichard, M.D.
Chairman

Report of the Coordinating Commission on Peer Review Activities

The Coordinating Commission on Peer Review Activities, as established by the House of Delegates, consists of the Speaker of the House; a member of the Board of Trustees; and the Chairmen of the Judicial Council, Claims and Utilization Review Committee and Committee on Impaired Physicians. The Commission's purpose is to oversee and direct all peer review activities, as well as to undertake specific studies. From discussions held by the House of Delegates last year, the Commission was directed to monitor the development of so-called "private" or "commercial" peer review. To this end, a meeting was held with representatives from the Kentucky Peer Review Organization (KPRO) and Blue Cross and Blue Shield (BCBS).

The Commission determined that the bulk of review being performed in this state and nationally is directed primarily for cost considerations. The areas of review considered were Medicare and Medicaid preauthorization review, other preauthorization programs, and claims audit services. Except on a limited scale, no quality of care review is being generally or uniformly performed because, most often, quality is assumed. Probably the only true quality of care review that is routinely accomplished is internally in hospitals, through the KMA peer review mechanism, and individual instances of review performed by the Board of Medical Licensure.

From information provided by KPRO and BCBS representatives, it was determined that review performed for cost reasons is definitely on the increase and will likely grow to even larger proportions. Many large group purchasers of medical insurance are now demanding

specific review functions, and preauthorization has become quite popular as the "state of the art." In this state, it was learned that some large commercial insurers routinely provide the preauthorization review option to purchasers, and these companies include BCBS, Prudential, Metropolitan, Aetna and John Hancock.

Commercial review services, the sale of automated claims review which is apart from the insurance carrier, are also increasing in Kentucky. Presently, there are at least four such commercial services, which include two provided by KPRO. Apparently, these are attractive to large employer groups as acknowledged cost reduction services. In addition, it is noted that some large companies that are self-insured likewise have imposed preauthorization review.

Another review trend that is obviously growing in the state is medical care delivery systems which have built-in review aspects. This category includes preferred provider organizations, health maintenance organizations, and independent practice associations (IPAs). While most all of the activities of this nature include a preauthorization review function, other review automatically occurs as a result of cost incentives. Categorically, each of these types of care delivery mechanisms offers set premium rates, which are guaranteed to the subscriber annually in return for essentially flexible limits on the amount of care rendered. These care delivery mechanisms, for the most part, are not free standing but, at least so far in Kentucky, are part of established physician groups or health care facilities. Some organizations involved in these programs are: The Humana Hospitals; the Lexington Clinic; a Baptist/Norton's group; Central Baptist Hospital in Lexington; the Trover Clinic; the Physicians' Alliance in Lexington; and the proposed IPA of the Jefferson County Medical Society.

From the information obtained, the Commission was able to make a number of observations. The first is that preauthorization review, whether through governmental medical programs, commercial insurance carriers, alternate care delivery mechanisms or third-party payors, apparently is becoming the review method of choice by major purchasers of insurance. Reasons for favoring preauthorization review seem to be the elimination of unnecessary admissions before the fact of care being rendered, a reasonable certainty that the care rendered is necessary and warranted, an actuarial benefit that exists in determining overall costs annually, and the so-called "sentinel" effect which influences against even considering questionable admissions.

The next observation is that, as already stated, qual-

HOUSE OF DELEGATES

ity of care is no longer given any consideration because it is assumed. On a proportional basis, quality of care review is all but nonexistent.

Service delivery methods that have review dimensions are on the increase, primarily for purposes of competition, and will likely continue to grow.

Another observation is that the development of internal review components of commercially sold insurance will increase.

A final observation is that review generally is, or will soon become, outside the province of physician control for the simple reason of cost considerations. As with newly developing reimbursement mechanisms, review will be dominated and even dictated by the purchasers of insurance or group payors for medical care.

J. Campbell Cantrill, M.D.
Chairman

Report of the Committee on Health Care Costs

The Committee On Health Care Costs met on June 14. The Committee had a number of challenges presented to it through the Kentucky coalition on Health Costs last year that have overlapped into this year, but there have been no distinct external challenges presented to the Committee during the 1984 KMA Associational year.

Last year we reported to you that through the stimulus of Governor Brown and Secretary of the Cabinet for Human Resources Stumbo, a Coalition of Health Care Payors was formed on a statewide basis. Although providers were not initially members of the Coalition, a minimal number of providers was added to the Coalition membership in the Fall of 1983.

As a result of the change in administration, the Coalition has held sporadic meetings, but has run into funding problems. One of the main staff people from the Coalition has now left the state and much of the momentum of the coalition has subsided.

You will recall that the Coalition was to be funded by dues from members and member organizations of the Coalition. KMA was one of the few organizations that did in fact pay those dues, while most of the individuals and organizations who were the greatest proponents of the Coalition, according to the information we have, did not pay dues.

One of the major challenges presented through the Coalition last year came from Governor Brown's Cabinet

Secretary, George Fisher. Providers were challenged to participate in a State health care cost plan which proposed that physicians bring about a reduction in the rate of increase in health care costs of \$21 million between July 1983 and June 1984.

Upon consultation with the Board of Trustees of KMA, the Committee offered a proposal which sought to maintain physicians' average rate of rise in fees at the level of the All Services Component of the CPI during that period and by reducing the average length of stay of patients in Kentucky hospitals by .14 days during the same period. At the time this report is being developed in June of 1984, I can report to you that we have had moderate success. The All Services Index of the National CPI increased 5% from May 1983 to May 1984. The Physicians Services Component of the National CPI increased 7.4%. While this increase is 2.4 percentage points above the All Services Index, it is still significantly lower than the rate of increase reported for 1982-83. In Kentucky, the rate of physicians' fee increase in 1982 over 1981 was 8.7% (Kentucky Blue Cross Blue Shield figures). The rate of fee increases in 1983 over 1982 was about 8%, and the annualized rate of increase between January and May of 1984 is 7.2%.

The AMA recently asked all physicians in the country to freeze their fees for one year. KMA endorsed this freeze and wrote to all physicians in the state urging their participation in the freeze. That activity took place in March of this year. However, it is obvious that physician fee rates are still increasing in spite of the request for a freeze on fees. It's difficult to say, however, if costs have or have not been reduced. Some of the fee increases now being reported may well have been from physicians who have not increased fees in some period of time, and an argument could be made that had the fee freeze not been in effect the rate of increase would have been much higher.

With regard to meeting our goal of reducing hospital lengths of stay by .14 days, the average length of stay in 1983, at the time the challenge was issued, was 5.74 days. The average length of stay for all of 1983 was 5.81 days. However, the number of admissions per 1,000 patients is down by approximately 4% over last year. From these statistics, one might conclude that physicians are being more judicious in hospitalizing patients and the longer average length of stay may signify sicker patients are being hospitalized.

The Committee urges that Kentucky physicians continue to be aware of the public's concern for health care costs and to make a concerted effort to continue to

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

deliver care in the most cost-effective manner while assuring quality of care.

The Committee discussed the many changes in delivery patterns which are being demanded by payors, particularly the larger corporations. One member of our Committee is a physician employed by a large corporation in Louisville. He reported that efforts are being made throughout the corporation to save \$190 million over the next three years in health care costs. These costs are presently averaging \$2,800 per employee, per year, which is a significant benefit cost. Efforts are being made to develop a data base using data from various carriers, a move toward concurrent review, second surgical opinions, hospital preadmission certification and closer scrutiny of lengths of stays and overall costs.

The Committee also discussed the cost containment efforts made through the State employee group insurance program, Citicare, the advent of hospital DRG-based payments, alternate systems such as PPOs, HMOs and IPAs and the recent amendments in the Medicare legislation.

Clearly, the payors of health benefits are concerned with the cost of care and are undertaking innovative programs to deal with that cost. After some discussion, the Committee felt that significant efforts need to be undertaken by the Association to help people understand that the most cost effective delivery of health care is that provided by the physician in the private office.

The Committee also noted that hospitals are spending an enormous amount of money on advertising, all of which must come from revenues derived from patient admissions. As the competition between hospitals increases, it is being exacerbated by the excess of beds resulting from shorter stays and decreased number of admissions. As a result, hospitals are trying to develop ways to fill up beds through advertising, "feeder clinics," and in some areas, there are rumors of physicians becoming employees of hospital companies or receiving other incentives to send all their patients to a particular facility.

One result of this is that there is a growing tendency for physicians to become allied with their hospitals to the point that there is more emphasis put on the hospital's survival than there is on the welfare of the patient and the profession. The Committee wishes to stress that it feels that physicians are the patient's advocate and that doctors must do what's best for the patient, not for the hospital.

There is a very real concern that corporations are

beginning to control the practice of medicine and that they may ultimately assume the positions of authority that physicians now hold.

The Committee continues to monitor developments in the area of health care costs, and I would like to thank the members for their continued interest and participation in the affairs of the Committee.

Walter I. Hume, Jr., M.D.
Chairman

END OF CONSENT CALENDAR ITEMS

Report of the Committee to Investigate Changing Trends in Medicine

Your Committee held three meetings this year: November 16, 1983, March 21, 1984 and May 23, 1984.

The charge to the Committee is to study and report on evolving delivery and payment mechanisms; to study and report on demographic trends affecting medical practice; to study and report on ethical questions regarding financial considerations vs. quality of life; to investigate trends in cost containment activities; and to determine, to the extent feasible, the role of organized medicine in this changing environment.

Last year we reported to you on competition in medicine, the emergence of the free-standing clinic, the preferred provider concept and the practice plans of residents and third and fourth year students. Our observations from those studies were:

1. Cost is the single biggest challenge confronting physicians today and is the single most important reason for the rapid movement toward non-physician involvement in medical payment issues.
2. The profession has lost much of its ability to discipline its own peers and unless some measure of authority is restored, professional organizations, and therefore the profession itself, will become increasingly fragmented and weak.
3. The corporate practice of medicine is here and will probably get stronger as larger numbers of physicians come into practice only to find very limited opportunities.
4. Patients and employers are cost conscious today and there is a growing trend to make in-

dividuals even more aware of the costs of medical services.

Our conclusion was that the profession needs to stand together today more than ever. County medical societies, KMA and the AMA will remain effective as long as we have a unity of purpose and represent a significant percentage of physicians in Kentucky. That collective influence is our only hope of maintaining the privilege of independence we've enjoyed as a profession.

We present these thoughts to you again because we feel they are as true today as they were last year.

This year, the Committee researched the following areas:

- Medicare prospective payment system based on diagnosis related groups.
- The challenges and opportunities of the young physician entering practice today.
- The image of the physician/profession.
- The AMA/GTE Network.
- Women in medicine.
- Hospital-owned free-standing clinics.

Last year, the House of Delegates asked the Board to appoint an Ad Hoc Committee on a Hospital Medical Staff Section to determine the feasibility of developing such a section within KMA. Because the impact of the prospective payment system as currently being implemented is upon hospitals, the Trends Committee met in joint session with the Ad Hoc Committee on a Hospital Medical Staff Section.

We were pleased to have Harry R. Hinton, Director of the Division of Professional Relations of the American Medical Association, meet with us to discuss the DRG program.

Evolution of the Medicare Prospective Payment System Based on DRGs

Medicare and Medicaid were enacted at the beginning of a period marked by expansion of federal government involvement in social programs. The "Great Society" programs of the mid-60's embraced new segments of the population and provided a wide array of social services including a variety of health programs. During those years, almost unlimited funds were being poured into varying aspects of the health care system.

It is within the context of expanded federal assistance for facility development, for manpower expansion, for health research and dissemination of medical knowl-

edge, and expansion of alternative delivery systems that the federal medical programs providing payment for medical services completed a circle of large-scale encouragement and direct financial support for the health care system.

In following years, the Medicare program and its coverages were expanded to the disabled and those with end-stage renal disease.

Because of program expansion, cost-based reimbursement under Part A, an increase in the number of program beneficiaries and per capita use of services, the expanding availability of providers and an increasing rate of inflation in the economy as a whole, the costs of Medicare began to increase sharply.

Cost-related amendments to Medicare began in 1972 when Congress imposed new controls on hospital reimbursement, capital expenditures, and new controls over physicians' fee increases. Later modifications affecting hospitals in particular were adopted, resulting in a major restructuring of hospital reimbursement in 1983 through the Prospective Payment System, based on DRGs.

The Prospective Payment System transfers control over the price of health services from the provider to the payor and it informs the provider of revenue limits imposed by the control. Thus, prospective pricing is, in theory, a means of reducing the growth rate in health care costs. Prospective Payment Systems place price control in the payor's hands and increase the provider's risk by giving him an incentive to minimize costs. Advance knowledge of the unit price and the amount of service provided and paid for within that unit, in effect, places a revenue cap on the provider's operation.

The payment unit under the DRG system is the case or discharged patient. Payment is made, not for the actual cost of care given to the individual patient, but for the average cost of care for patients with similar diagnoses. Payment itself is made after the patient is discharged.

The commercial health industry has launched a major campaign nationally to encourage all payor prospective payment systems at the state level. These systems will not only protect commercial carriers from providers shifting costs they cannot recoup under a PPS, but also, by presenting a unified front, the payors would force providers to reduce costs to all payors in the aggregate. The federal government has facilitated this effort by establishing criteria for state prospective payment systems, which, if met, would obligate Medicare and

HOUSE OF DELEGATES

Medicaid to participate. It seems likely that the Prospective Payment System would be a model for any payor systems that develop and for any expansion into payment for outpatient and physician services.

One of the longest active experiments in prospective pricing is the New Jersey program. This system is administered by the state and involves private sector payors as well. However, Medicare was the prime mover in initiating and developing the New Jersey DRG-based system, which in part provides the model for the national Prospective Payment System which went into effect last October. Recent evidence suggests that the New Jersey system has not reduced costs significantly. The Health Care Financing Administration, as a result, has notified the New Jersey program that HCFA has withdrawn the state's Medicare Waiver which allows its exclusion from the Medicare PPS. The reason given by HCFA was that "expenditures from the Medicare Trust Fund may be significantly higher than would be the case if the...national prospective payment system were applicable."

The development of DRGs was done in two stages. First, a panel of practitioners sorted the diagnostic and procedural codes from the International Classification of Diseases into major diagnostic categories (MDCs). A total of over 10,000 codes were clustered into 83 MDCs. The criteria included consistency of anatomic classification or the manner in which patients were clinically managed, a sufficient number of patients within each MDC for statistical analysis, and coverage over the complete range of codes without overlap. Following this, characteristics in a medical record were found which accounted for the variation of the length of stay among the records included in each MDC. These variables included patient age, sex, manner of treatment (medical or surgical) and the presence or absence of complications (conditions appearing during hospitalization) or conditions present at the time of admission. This resulted in an indication of the importance of a particular variable in explaining why a variance in length of stay was different from one MDC to another. In some MDCs, age was the most important variable, while in others it was significant only for certain age groups, while some MDCs showed that age was not a significant variable.

These results were used to generate a set of subgroups within each MDC. These subcategories became Diagnosis Related Groups. The subgroups were assigned relative mathematical values based on the importance of each variable in explaining the variance in length of

stay. This classification allowed assignment of any individual case, based on its medical record, to one and only one DRG. The first stage of DRG development was intended to ensure that the final groups were "clinically coherent" in that they represented similarities among bodily systems treated or in case management, while the second stage, the subcategorization of MDCs into DRGs, was intended to ensure that the groups were similar in terms of resource consumption. This initial effort resulted in the division of 83 Major Diagnostic Categories being subdivided into 383 Diagnosis Related Groups.

Some problems associated with this early effort were that the DRGs were developed with regional data (that from New Jersey only), and therefore reflected local practice patterns. Different data bases and different development teams might produce different patient classifications. The system was not clinically coherent and difficult to use by doctors and hospital administrators. DRGs were based on length of stay rather than on direct measures of cost. The presence of a secondary diagnosis could place the patient in a higher-cost DRG and as a result, patient assignments to the DRGs could be easily manipulated. There was also no provision made for a difference in level of severity of illness within a DRG.

Because of the criticisms and because the ICDA-8 had been superseded by ICDA-9CM, Yale University was awarded a grant to develop a new set of DRGs specifically geared to the requirements of the New Jersey Prospective Payment System. These new DRGs were intended to be medically interpreted, based on information available in existing medical record abstracts, limited in number, compatible with Medicare data for eventual Health Care Financing Administration use, limited in variation of length of stay within a DRG, and based on explicit rules on how to subdivide a Major Diagnostic Category.

The 23 new MDCs were based primarily on organ systems because this structure parallels that of the medical specialties, which in turn influence practice patterns. Where body systems were not the identifying characteristics of an MDC, the MDC still differentiated from others along specialty lines. The other major difference within the new DRG system is that the primary factor assigning a case to a particular DRG is the question of whether a surgical procedure was performed, reflecting the relatively high cost of surgical vs. non-surgical treatment.

HOUSE OF DELEGATES

A national data base of approximately 250,000 cases was used in development of the new DRGs and an additional 1.15 million records were used to test them. In addition, three different teams developed DRG definitions which turned out to be substantially similar.

No specific effort was made to allow for variations in severity of illness because research had indicated that variation in cost tended to be affected more by difference in practice patterns than by difference in levels of severity. Under the new Medicare system, the DRG is the payment unit and unit price is based on a nationwide measure of hospital cost. Each DRG is assigned a weight to the unit values and that weight multiplied by the unit value determines the payment for the individual case.

The DRG Relative Price Index, the weights attached to individual DRGs, are based on the Medicare Provider and Analysis Review Data file which consists of information regarding billed charges and clinical characteristics, such as principal diagnosis and principal procedure, for a 20% sample of all Medicare short-stay hospital bills submitted in a one-year period. The charge data are used to determine the relative cost of each DRG compared with the average DRG. The hypothetical average DRG is assigned an index value of 1.0 and the 467 DRGs range above and below that value.

The unit price or National Representative Cost per Discharge is found by combining Medicare cost reports and hospital discharge files for the same year that the MEDPAR file employed in determining the relative DRG price index. The most recent year for which complete data is available is 1981, so those figures are adjusted for inflation and regional cost differences. The hospitals' Medicare cost report provides detailed audit information about allowable costs incurred by institutions, while discharge files provide accurate counts of the number of discharges. The cost data divided by the number of discharges provides a flat charge per discharge which, combined with the Relative DRG Price Index of Weights, provides a national standard price for each DRG.

Payments based on DRGs will be phased in gradually and began October 1, 1983, with each hospital beginning implementation at the start of a new Medicare reporting period. The basis of payment will shift over the next three years from a 75% hospital-specific, 25% DRG, to 25% hospital-specific, 75% DRG. After that time, payment will be based on 100% DRG.

Service exceptions refer to those services covered by Medicare which will continue to be reimbursed under

the retrospective system. This includes physician services billable under Part B and ambulatory hospital services. Initially at least, PPS will be restricted to inpatient services defined in TEFRA as being included under Medicare Part A.

Hospitals which are exempted include long-term, pediatric, rehabilitation and psychiatric hospitals which will continue to be reimbursed under the retrospective cost-based system. Veterans hospitals and those under demonstration or state all-payor programs are also included. Those states which are waived from the program include New Jersey, New York, Massachusetts and Maryland, but as mentioned, New Jersey may lose its waiver.

These exemptions will be in effect during the three-year phase-in period, but the enabling legislation mandated that the Department of Health and Human Services study the feasibility of including physicians' services billable under Part B, but rendered to hospital inpatients in institutions covered by the DRG system. It was noted that there is some congressional support for legislation to include physicians' services even before the study has begun.

Another exemption is the outlier, which is a special supplemental allowance for cases which have unusually long lengths of stay or high costs. Under Medicare, if a case exceeds a set cut-off point or threshold for its DRG in terms of cost or length of stay, it receives a supplementary payment DRG rate divided by the mean LOS for that DRG, multiplied by the number of days beyond the cut-off point. Costs outliers are cases which do not exceed the length of stay cut-off, but do go beyond a cost threshold. While length of stay outliers are automatically identified, a cost outlier must be requested by the hospital and is subject to medical review. In an effort to minimize the hospital's incentive to generate outliers, payment will be made only at 60% of the prorated DRG amount.

It has been suggested that DRGs will force a closer relationship between hospitals and the medical staffs. However, DRGs may also raise pressure to change practice patterns such as emphasizing earlier discharges and performing fewer tests. Hospitals are faced with basically two choices, to either increase revenues or to decrease expenses. There are computer systems now available which are programmed to enhance diagnosis and to select only the low cost, high reimbursement cases.

Another possibility which may affect staff and hospital relations is an effort on the part of the hospital to modify

HOUSE OF DELEGATES

physician practice behavior. Hospitals have some leverage in determining who may be granted clinical privileges or whose clinical privileges may be withdrawn. Both are legally and actually within the hospital's authority and responsibility. Historically, hospitals have made such decisions in response to physicians' needs. However, more recently these decisions have been reached on the basis of the added dimension of the hospital's responsibility for the quality of medical care provided by the staff.

In the future, these decisions may be based on economic considerations, thus granting privileges to physicians and non-physicians who are likely to practice more economically. It is felt by some that the balance of power between the hospital and the physician is shifting toward the hospital, enhanced by the increasing supply of physicians, which in effect makes the hospital the buyer in a buyer's market.

Technology use may change as a result of DRGs. Hospitals will want to maximize reimbursement. It will quickly become apparent which technologies produce profitable results and which do not. One way to reduce losses may be to close down certain departments, thus eliminating specific technologies. Another may be a more selective approach to purchasing equipment and not purchasing equipment of marginal value. This may lead to the growth of specialty hospitals, generate greater product standardization, and increase the tendency for manufacturers to produce technological products of significant rather than marginal benefit.

An announced goal of HCFA is to include physicians under DRG payments in the future. However, it faces a lack of data on which to develop such a system. Some bills to Medicare come from physicians and some from patients. Information on billing sent to Medicare by the carrier contains no clinical data. There is no uniform procedure or diagnosis code. Other financial problems include chronic conditions not requiring admission and multiple admissions.

Increasing numbers of physicians and decreasing numbers of hospitals will create more pressure for exclusive contracts and closed medical staffs. Hospitals may use their leverage on appointments, reappointments and admitting privileges to keep the staffs open, thereby increasing their power base as more physicians and other providers seek to use the diminishing supply of facilities. Some have estimated a reduction of 800-900 hospitals over the next 10 years.

Because of the potential for physician reimbursement to be based on DRGs, and due to the potential for a

minimal amount of care being given in order to enhance reimbursement, the Committee felt KMA should serve as a central source where problems relating to DRGs could be reported. The Board of Trustees agreed with this concept and physicians were invited, through the *KMA Journal* and "Communicator," to alert KMA of any problems with the DRG system. Shortly after our recommendations were implemented, the AMA established a similar program. To date, no problems have been reported in Kentucky to KMA.

Challenges and Opportunities of the Young Physician Entering Practice Today

At the present time in Kentucky, there are 2,391 physicians under 40 years of age. Of those, 1,081 are not members of the Association.

Nationally, the under-40 age group represents 41.8% of all physicians (1981 figures). 17% are female. Clearly, this age group will have a significant impact on the direction that medicine will take over the next few years.

The Committee is pleased to have had two resident members who have been extremely active within the Committee. One resident member reported on the challenges the young physician faces today upon entering practice. The report was gathered from various resources including a number of journals, discussion with other residents and from personal experience.

One of the biggest problems facing the new medical professional today is the tremendous increase in the number of physicians entering practice. One study predicts that there will be an increase of 43% in physicians in practice between 1978 and 1990. Of course, this will result in increased competition among physicians for practice opportunities, locations and patients.

Young physicians today have difficult choices to face. More physicians mean limited practice opportunities in the traditional private sector. As competition for staff privileges grow, there is a greater emphasis on competence as the criteria for being accepted to the staff when new physicians have had no opportunity to prove they have the degree of clinical competency demanded.

The start up costs of practice are high. Professional liability insurance costs and capital needed to acquire and equip an office make it difficult to establish a solo practice, and other practitioners in a community may not welcome more competition from a newly trained physician. Increased governmental requirements and the frustration of dealing with third parties combine to

HOUSE OF DELEGATES

make it difficult to start a practice. These difficulties have faced many physicians over the years, but the new physician today has other options.

Corporate-sponsored organizations can be very attractive to the new physician confronted with the challenge of establishing a new practice. Corporate-sponsored practice often offers a good starting salary, limited hours, little practice overhead, guaranteed vacation and time for professional growth with no financial commitment from the physician. This type of practice may be appealing to female practitioners (whose numbers are now 30% of medical students nationally) who tend to enter primary care, want to work fewer hours, and tend to be less entrepreneurial than their male colleagues.

Young physicians feel both threatened and pressured by the establishment of PPOs, IPAs and free-standing clinics and the growing influence of investor-owned corporations in the delivery of care.

An increasing number of hospitals, both investor-owned and noninvestor-owned, are offering practice arrangements to physicians. These range from fully salaried employment to an unwritten agreement to send all the physician's patients to a specific hospital in return for a guaranteed patient base and complimentary office space and equipment. The obvious problem is the potential for medical decisions to be influenced by business managers.

Organized medicine is often seen as a group of established practitioners with little interest in the problems of the young physician. Many physicians in their residencies are apathetic and are concerned with finishing residency without giving much thought, at least in the early stages, to the competition they will face upon entering practice. At the same time, corporate entities are extolling the virtues of corporate practice. Organized medicine has done little to make the young physician aware of the options, opportunities, and benefits of a noncorporate-sponsored practice.

Many younger physicians in training don't realize what KMA can do for them. There are few perceived incentives to join. Various studies show that by 1990, a majority of practicing physicians will be under 40-years-old.

In an effort to enhance dialogue with the resident population, President Holloway appeared on the Resident Orientation Program at the University of Kentucky on June 28, and Membership Committee Chairman Haller addressed residents at the University of Louisville Orientation Program on June 30. In addition, we have met with the House Staff leaders at both universities in an

effort to determine their interest in establishing a Resident Business Section within KMA.

A full-time Membership Coordinator has been added to KMA's staff and a comprehensive recruitment effort is being undertaken to bring physicians under 40-years-old into the membership. In addition, other incentive programs are being investigated, all with the idea of increasing the role and representation of the young physician within the Association.

The Image of the Physician/Profession

The Kentucky General Assembly met this year and, based on the number of legislative issues in which KMA was interested, the Session could be considered to be a reasonably positive one, mainly through the efforts of the Legislative Committee, the Key Men and the intensive lobbying activities of KMA Staff. However, it is important to point out that the Legislature has developed an almost hostile attitude toward health providers. Health care costs have now joined the issues of taxes and utility costs as the three most negative issues with which the legislators now deal. A number of influential legislators have stated that much of the negative legislation introduced this year was an effort to try to make the health care delivery system realize the concern of the Legislature over health-related costs. If major changes are not undertaken voluntarily, providers can expect significant legislation and regulatory measures to be adopted in the 1986 Session to deal with the cost issue.

At the 1984 AMA Annual Meeting, the AMA Council on Long Range Planning and Development issued a Report on the Implication of Trends in Physician and Public Attitudes. The Report analyzes the results of a survey consisting of telephone interviews with 1,000 physicians and 1,500 U.S. adults performed for the AMA by an independent research organization.

The number one problem facing health care in both the physician's opinion and the public's opinion is that of cost. 65% of those polled from the public sector indicated that cost was the major problem, while 52% of the physicians polled felt that cost-related issues were the major problem. The second highest problem cited by physicians was government regulation. This would indicate that while public concern over medical cost continues to rise, physicians' concern over cost per se dropped somewhat while their concern over government efforts to regulate costs increased. The results of the physician poll do not imply that physicians are becoming less concerned about costs. The issues of health

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

care costs and governmental regulations are highly interrelated. Thus, the survey results represent a subtle change in the way physicians view a complex set of interconnected issues.

The survey indicated that there continues to be strong public resistance to changes in the health care system designed solely to help control costs. The public appears to support restructuring the system to control rising costs as long as changes do not affect the way in which each individual receives medical care. Additionally, there are signs of possible consumer backlash against proposals which would increase out-of-pocket costs or create incentives for consumers to choose low coverage insurance packages. These opinions imply increased public support for regulatory solutions that would place the burden of cost constraints on providers. Thus, from the public side, it would appear that physicians' concerns about federal intervention are well founded. Based on the attitude of the Kentucky General Assembly this past Session, it is clear that the attitudes expressed in the national survey are applicable to Kentucky.

The survey also sought to track trends and general perceptions of physicians. The public opinion of physicians in general varied substantially by scientific vs. economic emphasis. Physicians continue to be highly regarded in terms of their scientific knowledge. However, image deterioration in the area of fees and incomes is particularly evident in the survey results. However, the image of the personal physician is sharply better than the image of the general physician population. Similarly, within the Trends Committee there is a general agreement that the public's perception of the profession has greatly changed in the last few years, basically over a concern with costs. It was felt that KMA must establish the renovation of that image as a priority item in the coming year and activities should be undertaken by the Association to enhance the public's perception of the profession. The Committee felt that the most effective image enhancement program could be developed for use by the practitioner in his office rather than through an advertising campaign done primarily through the media.

An area which has significant potential for enhancing the image of the profession through individual activities is to make the membership more "customer" conscious. While most physicians are extremely attentive to their patient's medical needs, one might question the degree of emphasis put on the patient's "customer needs." How long does it take for a patient to get through to your office on the telephone? Are patients put on hold for

long periods of time? What is the attitude of your staff on the telephone and when they receive patients in your office? Plans are being made to provide information to the membership on various marketing techniques which might serve not only to enhance the image, but also to help them to be more competitive with investor-owned entities as well.

The Committee also reviewed and was very supportive of a slide presentation developed by KMA which discusses the health cost issue and tells "medicine's side of the story." The professionally done program is available on loan from the Headquarters Office and is designed for presentation before lay audiences. The Committee encourages members of the House to avail themselves of this program. Physicians must take the lead in setting forth our story. Certainly, we cannot rely on other entities to do it for us.

Women In Medicine

The Committee met with Leah J. Dickstein, M.D., Associate Dean for Student Affairs at the University of Louisville, and a founding member of the Kentucky Chapter, American Medical Women's Association. The AMWA was organized in 1915 because women, at that time, were not allowed to join organized medicine. There are about 65,000 women physicians in the United States today, with approximately 1,000 in the state of Kentucky. Nationally, about one-third of the current medical school class is female.

According to Doctor Dickstein, women physicians are very concerned with women's health issues, such as unnecessary hysterectomies, mental health problems and the use of medications for women patients. Studies have shown that women receive more psychotropic medications than men, which are mostly prescribed by nonpsychiatrists. The pharmacology of medicine is a major issue with female physicians today.

Most female physicians today practice full time; however, a significant percentage are not members of KMA. Many female physicians find little time for organized medicine because they are busy practicing while, in many instances, they are raising a family. In addition, many may not be aware of the services offered by KMA. Some simply choose not to get involved in organized medicine, but Doctor Dickstein felt there are a number of female physicians who might get involved if they were encouraged and invited to do so. Doctor Dickstein said she felt female physicians could be very helpful in sharing opinions and ideas of general medical care

HOUSE OF DELEGATES

of women patients and could bring unique perspectives to organized medicine. It would be helpful for everyone to be made more aware of the attitudes of women, both as patients and physicians.

The Committee felt a vehicle is needed to enhance female participation in KMA. The establishment of a Medical Women's Section, similar to the Student Business Section, was discussed as one way that female physicians could participate in KMA and at the same time provide a mechanism to bring issues affecting women before the House of Delegates.

A meeting was held with representatives of the American Medical Women's Association in late June to discuss the various benefits of KMA membership and the feasibility of a Women's Medical Section. The Committee plans to continue its efforts to enhance the participation and membership of female physicians in the activities of KMA.

Hospital-Owned Free-Standing Clinics

In Louisville, Norton's Hospital has purchased three so-called "free-standing emergency clinics" and is scheduled to construct four more. It is our understanding that Norton's will rent space to physicians, furnish certain services and equipment, but will require that they stay open a certain number of hours and "urge" the physicians operating the clinics to send patients to that hospital. As a result, the Jefferson County and Kentucky Academy of Family Physicians requested the Determinations Subcommittee of the Certificate of Need Board to determine if a Certificate of Need was necessary for free-standing clinics. The Certificate of Need Board decided a Certificate was not necessary in that the FECs were no different from a physician's office and did not make a facility charge to third parties or patients. There is an exclusion in the current State law that exempts physicians' offices from Certificate of Need. A major concern is that if Certificate of Need statutes are changed in such a way as to require a Certificate of Need for free-standing clinics, individual physician's offices may also be forced to undergo the same application and hearing process for their individual offices.

This issue had been brought to the Committee because it is the type of problem the Board had originally wanted the Committee to discuss. That is, if two groups of physicians, both licensed to practice medicine and both practicing appropriately, with both groups having membership within KMA, what position should the Association take in trying to work out a conflict between

the two? The members of the Committee felt that the key to solving the problem is for traditionally practicing physicians to become competitive with these entities. Physicians will have to meet competition, not try to legislate it out of existence, by providing a better service at a better price.

Hospitals are now getting into the delivery of care rather than furnishing a facility at which care is delivered. DRGs, Preferred Provider arrangements, and the shift from institutional to outpatient procedures are all creating pressure to keep patients out of hospitals, and hospitals in turn are looking for ways to bring people back into them.

It was felt that the time had come for organized medicine to take a stand with regard to the movement of hospitals toward the practice of medicine. If this growth and movement continues unchallenged, it will only serve as an incentive for more institutions to develop and implement similar programs. The Committee felt it was time for the profession to take the offensive by becoming more available to their patients, by being more sensitive to their needs, and by the physician becoming more aware of an individual's financial circumstance.

There was agreement that the Committee should look into activities which would educate the membership about the myriad of alternate plans now being devised and implemented in an effort to make them both aware of the challenges they will be facing in the next few years and to help provide opportunities for them to develop techniques to address those challenges.

We are investigating the development of a program on the many socioeconomic issues now facing medicine. Although it was felt that it might be difficult to produce such a program in September of '84, the option was left open for the Committee to produce such a program at another time during the upcoming year, and we are hopeful such a presentation can be developed by late winter or early spring of 1985.

Competition

One of the Committee's members is a principal in a private commercial laboratory. Because competition among private laboratories is so intense and because it has a number of parallels with the changes medicine is now undergoing, the Committee asked Doctor Clanton to report on the evolution of competition within the commercial laboratory field.

The commercial laboratory business has become very competitive over the years. Companies now have mar-

HOUSE OF DELEGATES

keting representatives and customer representatives and tend to be somewhat aggressive in their marketing. Most commercial lab negotiations are done through a bidding process with a narrow profit margin making the better financed and managed operations more competitive, many of which are growing and becoming more powerful.

The key to commercialization of the laboratory business was automation and technology.

Advances in automation made it possible to increase volume while reducing the unit cost of service which created competition. Lower prices resulted in higher volume. At the same time, there were increases both in the number of third parties and in the services covered by them.

Now, government regulations are making it possible to use more non-MDs in providing lab services, which has led to more price-based competition.

The mail order lab business was able to offer a package of low costs and needed services to remote areas. That put a great deal of pressure on the smaller local individually-owned pathology laboratories.

Today's commercial lab business requires significant capital to compete in the marketplace. Some sophisticated tests require the availability of well trained specialists. Marketing and management skills are required to compete. The trend is toward a predominance of large laboratories with highly automated equipment, which are well capitalized and managed. This may preclude the physician from being a major decision maker in the management of the business. The physician will be an important employee selling his technical and professional skills. The use of non-MD's has greatly increased in this area, with PHD's and other technicians being used primarily.

Doctor Clanton reported that, in the commercial lab business, the physician has lost a great deal of independence. He noted the parallels of the commercialization of the laboratory business with the movement of hospitals into the practice of medicine and the explosive growth of the investor-owned HMOs whose enrollments are growing about 20% per year.

In continuing its study of the changing trends in medicine, the Committee has established the objective of developing information which will help both individual physicians and organized medicine plan for the future. It is increasingly apparent that the future of the profession, of organized medicine, and of medical care in this nation depends on our ability to anticipate and plan for changes in the environment of medicine.

If there is one unchangeable law, it is that no indi-

vidual or organization can be protected from change. This concept is not news to a profession whose membership includes individuals who began practicing before antibiotics, health insurance, polio vaccine and Medicare and Medicaid. Still, change in the past is most often equated with progress because virtually every change seemed to expand the physician's ability to provide effective care and created new demands for medical services. However, some current developments may not be beneficial to all patients and physicians. Unless the profession is successful in planning for and shaping the environment of medicine, the future could be less encouraging.

As physicians we cannot forget the most important scientific challenges of medicine remain impairment and disease. Please keep in mind that success in responding to the environment within which the profession must provide its service may be as important to health in America as any challenge we as a profession have ever faced.

Charles C. Smith, Jr., M.D.
Chairman

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 next reviewed the Report of the Committee to Investigate Changing Trends in Medicine and recommends that in order to implement Report No. 33, consideration be given to the hiring of a full-time public relations expert to involve multi-media mechanisms to disseminate the position of physicians and to enhance the image of physicians in the state of Kentucky. Reference Committee No. 4 recommends that Report No. 33 be adopted. Reference Committee No. 4 further recommends that the recommendation of the Reference Committee be adopted.

Resolution N

Campbell-Kenton County Medical Society Business Coalition

WHEREAS, health care issues have become a major concern of most businesses; and

WHEREAS, the KMA previously initiated a coalition with businesses to better understand the health care problems of business and to address those issues jointly; now therefore be it

RESOLVED, that the KMA resurrect its business coalition initiative; and be it further

RESOLVED, that the KMA develop an official program for the benefit of the officers of its component

HOUSE OF DELEGATES

medical societies and officers of local business groups; and be it further

RESOLVED, that such program focus on methods of creating a cooperative atmosphere to solve the health care issues of businesses.

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 then discussed Resolution N, Business Coalition, submitted by the Campbell-Kenton County Medical Society. The Committee would recommend that physicians in Kentucky become more involved in local chambers of commerce and the Kentucky Chamber of Commerce. Reference Committee No. 4 recommends that Resolution N be rejected.

Resolution R

Jefferson County Medical Society

Contractual Arrangements and Patient choice

WHEREAS, Kentucky physicians have observed the growth of insurance programs, prepaid plans, establishment of hospital-owned practices and agreements with existing medical practices, many of which are sponsored by specific hospitals in an effort to maintain census levels; and

WHEREAS, some such arrangements may not be in the public interest because they have the potential to result in massive shifts of patients from one hospital to another, and from one physician to another, to the detriment of the traditional physician/patient relationship and without regard to the needs or convenience of patients and their families; now therefore be it

RESOLVED, that Kentucky Medical Association members carefully consider the implications of proposed contractual arrangements which could disrupt traditional referral and admissions patterns, hinder existing physician/patient relationships or diminish patients' freedom of choice and quality of medical care; and be it further

RESOLVED, when contractual arrangements are entered into directing patients to a different facility, that the physicians involved fully inform the patients of these practice relationships.

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 next discussed Resolution R, Contractual Arrangements and Patient Choice, submitted by the Jefferson County Medical Society, and

would recommend that Resolution R be referred to the KMA Board of Trustees.

Resolution W

Mercer County Medical Society

Blue Cross and Blue Shield Preauthorization Program

WHEREAS, physicians in the Commonwealth have made no specific contracts to provide services according to demands in the State employees' Blue Cross and Blue Shield (BCBS) insurance coverage; and

WHEREAS, the attending physician is in a better position to determine a patient's need for hospitalization than nurses, using written "criteria," who have never seen the patient; now therefore be it

RESOLVED, that physician members of KMA refuse to comply with contractual demands for preauthorization of hospital admissions.

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 next considered Resolution W, Blue Cross and Blue Shield Preauthorization Program, submitted by Mercer County Medical Society, and would recommend that the following policy established by the KMA House of Delegates with the adoption of Resolution W in 1983 be reaffirmed:

"RESOLVED, that the Kentucky Medical Association go on record as being opposed to implementation of medical preadmission review by third-party carriers, and be it further

"RESOLVED, that the Kentucky Medical Association inform all members of this opposition."

Therefore, Reference Committee No. 4 recommends that Resolution W, 1984 be rejected.

The motion was seconded from the floor. On call for discussion, Bacon R. Moore, III, M.D., a Delegate from Mercer County, was recognized and proposed that Resolution W, 1984, introduced by the Mercer County Medical Society, be adopted rather than rejected as recommended by the Reference Committee.

Discussion was held and KMA Legal Counsel commented that Resolution W, 1984, could pose legal difficulties for the Association.

On a call for the vote, Resolution W, 1984, was rejected, and the policy established by the House of Delegates by Resolution W, 1983, was reaffirmed as

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

printed in the Reference Committee recommendations above.

Resolution AA Fayette County Medical Society Preadmission Review and Preferred Provider Services

WHEREAS, certain private insurance carriers are currently performing preadmission review in Kentucky; and

WHEREAS, this preadmission review function is being conducted deliberately against the established policy of the Kentucky Medical Association on preadmission review; and

WHEREAS, certain private insurance carriers are now aggressively soliciting both physicians and hospitals to participate in preferred provider organizations, and

WHEREAS, private insurance carriers are not physician sponsored organizations; and

WHEREAS, it is the position of the Kentucky Medical Association that preferred provider services ought to be sponsored by physician controlled organizations; now therefore be it

RESOLVED, that the Kentucky Medical Association aggressively publicize its opposition to the conduct of preadmission review and preferred provider services by private insurance carriers; and be it further

RESOLVED, that the Kentucky Medical Association members and staff not participate in any appointive or elective positions with private insurance carriers until and unless preadmission review and preferred provider services are terminated.

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 next considered Resolution AA, Preadmission Review and Preferred Provider Services, submitted by the Fayette County Medical Society. Resolution AA contains two "Resolveds," each considered separately. Reference Committee No. 4 felt that the first "Resolved," calling for the KMA to aggressively publicize its opposition to the conduct of preadmission review and preferred provider services by private insurance carriers, is an extension of established KMA policy contained in Resolution W of 1983. Therefore, Reference Committee No. 4 recommends adoption of the first "Resolved" of Resolution AA.

Next Reference Committee No. 4 considered the second "Resolved" of Resolution AA. Reference Commit-

tee No. 4 discussed the policy of the KMA established by the House of Delegates in 1980, which reads as follows:

"That the House of Delegates reaffirm its previous long-standing policy approving service by KMA members, elected officials, and staff on the boards of third-party health insurance carriers, and the contrary action of the House of Delegates adopted in 1979 be rescinded."

Reference Committee No. 4 recommends that the second "Resolved" of Resolution AA be deleted.

Reference Committee No. 4 recommends that Resolution AA be adopted as amended. One member of the Reference Committee did not agree with the majority and has filed a Minority Report on this subject, which is attached.

MINORITY REPORT OF REFERENCE COMMITTEE NO. 4

Resolution AA—Preadmission Review and Preferred Provider Services (Fayette County Medical Society)

The Minority Report, filed by Thomas M. Jarboe, M.D., Lexington, recommends the adoption of Resolution AA with the following amendment. The final "Resolved" should be deleted and replaced by a new "Resolved" which will read as follows:

"RESOLVED, that the Kentucky Medical Association members and staff, in any appointive or elective positions with third-party carriers, be instructed as to the position of the KMA so that they may represent the position of the Association on preadmission review and preferred provider services to the boards and management of those carriers."

Mr. Speaker, the minority recommends that Resolution AA be adopted as amended.

Mr. Speaker, the minority recommends adoption of the Minority Report.

Thomas M. Jarboe, M.D., Lexington

The motion to adopt the Minority Report was seconded from the floor.

Several Delegates spoke in favor of the Minority Report. Doctor Jarboe proposed an amendment to the Mi-

HOUSE OF DELEGATES

nority Report to change the word "instructed" in the third line of his proposed Resolved to "informed." The wording change as proposed was adopted.

On a call for the vote, the Minority Report was adopted as amended by the House, and Resolution AA, adopted as amended, is printed below:

Resolution AA (Adopted as Amended)

WHEREAS, certain private insurance carriers are currently performing preadmission review in Kentucky; and

WHEREAS, this preadmission review function is being conducted deliberately against the established policy of the Kentucky Medical Association on preadmission review; and

WHEREAS, certain private insurance carriers are now aggressively soliciting both physicians and hospitals to participate in preferred provider organizations; and

WHEREAS, private insurance carriers are not physician sponsored organizations; and

WHEREAS, it is the position of the Kentucky Medical Association that preferred provider services ought to be sponsored by physician controlled organizations; now therefore be it

RESOLVED, that the Kentucky Medical Association aggressively publicize its opposition to the conduct of preadmission review and preferred provider services by private insurance carriers; and be it further

RESOLVED, that the Kentucky Medical Association members and staff, in any appointive or elective positions with third-party carriers, be advised as to the position of the KMA so that they may represent the position of the Association on preadmission review and preferred provider services to the boards and management of those carriers.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 4 as a whole, as amended.

Mr. Speaker, I want to express my appreciation to the members of the Reference Committee and to those who expressed their opinions during the Reference Committee hearing. The Reference Committee members are: Gordon W. Air, M.D., Crestview Hills; James S. Gwinn, M.D., Paducah; William R. Handley, M.D., Elizabethtown; and Thomas M. Jarboe, M.D., Lexington.

ton. I would also like to thank Martha Coombs for her assistance in the preparation of this report.

Reference Committee No. 4

James Childers, M.D., Chairman
Louisville

Gordon W. Air, M.D.
Crestview Hills

James S. Gwinn, M.D.
Paducah

William R. Handley, M.D.
Elizabethtown

Thomas M. Jarboe, M.D.
Lexington

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 5

Reference Committee No. 5 considered the following Reports and Resolutions:

34. Report of the Committee on Maternal and Child Health
35. Report of the Committee on Medicare and Other Governmental Medical Programs
36. Report of the Committee on Health Planning
37. Report of the Technical Advisory Committee on Physician Services (Title XIX)
38. Report of the Committee on Community and Rural Health
39. Report of the Committee on School Health, Physical Education and Medical Aspects of Sports
40. Report of the Advisory Committee to CHR

Resolution G - Assumption of Liability for Government Program Recipients (McCracken County Medical Society)

Resolution Q - Kentucky Medical Assistance Program (Jefferson County Medical Society)

HOUSE OF DELEGATES

- Resolution S - Deficit Reduction Act of 1984 (Jefferson County Medical Society)
- Resolution U - Deficit Reduction Act (McCracken County Medical Society)
- Resolution V - Medicare Amendments to the Deficit Reduction Act of 1984 (Warren County Medical Society)
- Resolution Z - Medicare Mandatory Assignment (Campbell-Kenton County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 5 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

- 34. Report of the Committee on Maternal and Child Health—Filed
- 35. Report of the Committee on Medicare and Other Governmental Medical Programs—Filed
- 36. Report of the Committee on Health Planning—Filed
- 37. Report of the Technical Advisory Committee on Physician Services (Title XIX)—Filed
- 39. Report of the Committee on School Health, Physical Education and Medical Aspects of Sports—Filed
- 40. Report of the Advisory Committee to CHR—Filed

Resolution Q—Kentucky Medical Assistance Program (Jefferson County Medical Society)—Adopted

Resolution Z—Medicare Mandatory Assignment (Campbell-Kenton County Medical Society)—Adopted

Report of the Committee on Maternal and Child Health

During the 1984 regular session of the Kentucky General Assembly, the Committee on Maternal and Child Health closely monitored several legislative proposals which fell within its jurisdiction. House Bill 426, frequently referred to as the “Baby Doe” bill, was one such measure. This proposal was even more stringent than that offered at the national level. After consultation with various members of the Committee, witnesses expressed KMA’s concern before the House Health and Welfare panel which was considering the proposed legislation. While Health and Welfare reported the bill

favorably, it was later committed to the House Appropriations and Revenue Committee where it stayed for the remainder of the Session.

Another matter of concern was Senate Bill 181, which made a somewhat vague reference to lay midwifery. Having been actively involved in fighting proposals which called for licensure of lay midwives during the 1982 session of the General Assembly, the Committee felt KMA should continue to oppose any bill which might give greater credence to lay midwifery. This particular bill died after being recommitted to the Senate Health and Welfare Committee.

On a Federal level “Baby Doe” regulations again ran into trouble. The U.S. District Court for the southern district of New York held that Federal rules issued January 12, 1984, pertaining to nondiscrimination against handicapped infants, were invalid. The Court declared the rules “invalid and unlawful . . . having been promulgated without statutory authority.” The Court’s opinion relied on an earlier ruling of the Second Circuit Court of Appeals in the “Baby Jane Doe” case, in which the Federal Government’s attempt to obtain medical records of a severely ill infant was based solely on the authority of Section 504 of the Rehabilitation Act.

While at the time of this writing a Final Order has not been issued, it is likely that when one is handed down, an appeal will be taken. The Committee noted that pending the issuance of a Final Order, hospitals will probably continue to adhere to the subject regulations.

The Committee continued to maintain an interest in the Federal Block Grant Program, in particular that portion related to Maternal and Child Health. KMA staff attended several meetings of the Interim Joint Committee on Health and Welfare, which were convened solely for the purpose of discussing Federal monies flowing into the State. As might be anticipated, interagency competition for monies is intense, and testimony presented at various meetings indicated that services would have to be curtailed if additional appropriations are not forthcoming.

As Chairman I express my appreciation to the members of this Committee for their services and their contributions to the Association and to medicine in general. I would also like to thank the KMA staff for its assistance to our Committee.

Van R. Jenkins, M.D.
Chairman

Report of the Committee on Medicare and Other Governmental Medical Programs

The Committee on Medicare and Other Governmental Medical Programs was directed this year to monitor the implementation of the new Federal prospective payment system based on diagnosis related groups (DRGs) through carrier activities. A meeting was held with carrier representatives, which provided considerable information.

By Federal mandate, hospitals began receiving reimbursement based on DRGs on October 1, 1983. Hospitals with fiscal years beginning after that date were to be phased in as their new fiscal years began. At the present time, there are 89 hospitals in Kentucky being reimbursed by DRGs, with 17 yet to come under the plan. There are 10 hospitals exempt from the DRG payment system because they are Veterans Administration hospitals, psychiatric hospitals or have other specific waivers.

Under the system, reimbursement is made, depending on whether or not the hospital is classified as urban or rural by census data. For payment purposes, Kentucky hospitals are grouped regionally with those in Tennessee, Mississippi and Alabama. There is a three-year phase-in period for DRG reimbursement, where final payment made to hospitals will be based 75% on the hospitals' historical reimbursement rate, and 25% on the regionally developed DRG rate. The second year reimbursement will be based 50% on the historical data and 50% on DRGs. The third year reimbursement will be made on 25% historical data, and 75% DRG rates, and after that, all reimbursement will be made on a national level from DRG data.

Operationally, DRGs are assigned by the hospital based on the "principal" diagnosis, or the diagnosis that was the primary reason for admission. The diagnosis is then coded into one of the 468 DRG groups. Reimbursement is based on the individual DRG weight times the hospital's cost-per-case, and payment is then determined. The DRG assigned is confirmed by the Kentucky Peer Review Organization (KPRO) through its on-site review process, and the diagnosis must be supported by the medical records. The carrier has no obligation to confirm the diagnosis, but only determines whether or not the services being provided are covered by the Medicare Program. Once the carrier receives the claim, payment is guaranteed because of the preauthorization program.

There is a provision for procedures and lengths of

stay that fall outside the average guidelines. These instances are called "outliers." The trigger for determining those instances of care that might fall into the outlier category is a length of stay extending beyond the average or charges totalling above \$16,000. Additional payment can be made to hospitals for outliers, but at a much reduced rate than that paid for the basic diagnosis. Initially, the Health Care Financing Administration (HCFA) predicted that 5-6% of all cases would fall in the outlier category, but carrier information to date indicates that outliers are much below that figure.

One additional review requirement that the carrier has is to watch for instances of readmission within seven days of discharge. Additionally, KPRO is conducting a medical care evaluation study termed "Admission Pattern Monitor," which by HCFA dictate, is to determine if there are flaws in the DRG system which would allow otherwise inappropriate admissions.

From the carrier's perspective, no appropriate analysis can be made of the DRG system with regard to effects on costs overall. From an interim analysis, though, the carrier has indicated that services overall by physicians have been reduced; claims take longer to process because they are now being submitted by hospitals on an average of two to three weeks from date of service; and some hospital administrators have voiced concerns over their categorization as rural rather than urban hospitals.

From the information considered, the Committee made several observations. At the time that a national payment rate is developed, Kentucky will probably receive a higher level of payment overall because Kentucky's hospital costs are low compared to the national average.

No valid analysis on the overall amount of reimbursement made to hospitals under DRGs, as compared to the previous payment method, can be made, at least until the program has been in operation for one year with all eligible hospitals participating.

Little friction has been reported between hospital administrative personnel and staff physicians, even though the hospital must rely on completion of the medical records by the physician before claims can be submitted. It is predicted that such situations may well increase in the future, though, until a point is reached where physicians whose hospital practice patterns are not "cost effective" will be influenced to change their modes of practice.

The success or failure of DRGs will obviously have a great deal of influence on whether or not physicians are reimbursed under Medicare on the basis of DRGs.

HOUSE OF DELEGATES

If the prospective payment system is proven to be effective, the commercial insurance industry will likely adopt it and seek a strong market for it.

Paul J. Parks, M.D.
Chairman

Report of the Committee on Health Planning

The Committee on Health Planning met three times in 1983. However, we did not convene a formal meeting during this reporting period. This was due primarily to the activities of the Kentucky General Assembly and litigation surrounding Kentucky's controversial State Health Plan.

Simply stated, court battles over the Plan kept to a minimum those matters falling within this Committee's jurisdiction.

The first suit involving the Plan was settled in May, 1984. Under the terms and conditions of a *Memorandum of Understanding* entered in the case, the State Health Planning Council (SHPC) agreed, among other things, to reconsider the acute care provisions contained in the Plan and to withdraw certain emergency regulations intended to implement the Plan. The SHPC further agreed to refrain from promulgating additional regulations relating to the designation of medical service centers, tertiary care centers or area hospitals; the implementation of a capital expenditure limit for hospitals; or delicensure of excess hospital bed capacity.

After the Agreed Order was filed the SHPC and the Certificate of Need Board met several times. During these meetings additional regulations were discussed, including one intended to reestablish a moratorium on the construction of long-term care beds in the State.

At approximately the same time the CHR determined to proceed under newly passed House Bill 334 (KRS Chapter 13A) with the promulgation of regulations related to Certificate of Need and the health planning process generally. Several of these regulations called for incorporation by reference of portions of the embattled State Health Plan.

These activities prompted the filing of another suit against the Cabinet for Human Resources, the Certificate of Need Board and others. This litigation is predicated on essentially the same legal principles as the one settled in May. At the time of this writing, the second case is still pending and probably will not be decided until fall. In the meantime, public hearings on those regulations seeking to incorporate by reference

certain provisions of the Health Plan have been tentatively rescheduled for September.

There are a number of substantial problems with incorporating portions of the Health Plan by reference as a regulation. First of all, many of the incorporated provisions have no independent statutory base. They are simply statements excerpted from the Plan which, by virtue of their incorporation by reference, suddenly take on the force of law. No fact-finding or inquiry occurs regarding the validity of the assertions, philosophy, statistics or other matters contained in the incorporated material. If this approach is an appropriate one, anything can be incorporated by reference and, overnight, gain the force of law. Such a result is patently ridiculous, and KMA has taken strong exception to it.

The Committee will continue to monitor developments in this area. I would like to thank the members of the Committee and the KMA staff for their help in this regard.

Frederick A. Stine, M.D.
Chairman

Report of the Technical Advisory Committee on Physician Services (Title XIX)

The Technical Advisory Committee on Physician Services remained active this year in representing the Association to the Medical Assistance Program and the Medical Assistance Advisory Council. This representation took place with qualifications determined by the Board of Trustees, based on the policy adopted by the House of Delegates, as stated in Resolution L. Resolution L directed that KMA can no longer support the present operation of the Program.

The members of the Medical Assistance Advisory Council are, like physicians, voluntary representatives, primarily of other provider groups. The Council was in sympathy with the KMA position, as each provider group essentially feels under the same constraints as physicians with regard to Program policies and reimbursement levels. Regardless of widespread dissatisfaction, all technical advisory committees and Council representatives continued their diligent service on behalf of Medicaid recipients, and it is gratifying to state that the KMA Technical Advisory Committee followed suit.

A number of notable events occurred this year relating to the Medical Assistance Program. Foremost was the termination of the Citicare Program, effective July 1. Citicare was a controversial issue at, literally, each

HOUSE OF DELEGATES

of the Council meetings, and KMA's opposition to it was repeatedly voiced. The stated purpose for termination of Citicare was that State Government felt the Medicaid Program should be operated uniformly across the state. Unfortunately, information relating to the fiscal and administrative management of Citicare either has not been obtained, or is not available, for an accurate and objective review.

Indications are that some significant modification will be made to the Medicaid Program, and KMA has given strong indications of its willingness to have a part in considering these modifications, but as of this writing, no information about any changes has been forthcoming.

Another significant event this year has been the fact that physician profiles again were not updated. Some hopeful indications of an update were apparently considered by the State with the convening of the General Assembly in anticipation of increased revenues from taxes. However, neither increased taxation nor revenues were forthcoming. Although no hard figures are available, it is predicted that an obvious result of increasing restrictive operational policies and ever diminishing revenue has resulted in a continued decline in participation by physicians. From what information is available, however, it is likewise predicted that, although fewer physicians treat Medicaid patients, a relatively minor number of physicians have practices which consist primarily of Medicaid recipients.

This problem is not mitigated by the supposed large increase in the number of physicians in practice. Information obtained from the Board of Medical Licensure was that for the past three years the number of practicing physicians in the state has increased by no more than 3% each year. In spite of what is probably an overall decrease in the number of physicians participating, the Medical Assistance Program has given information that the number of claims filed has not decreased. Likewise, even though hospital admissions have declined in the neighborhood of 15% over previous years, the total amount of money spent has remained constant, just as has the total number of recipients. One obvious affecting factor for this is an emphasis on and coverage for many more outpatient procedures than was previously the case.

Another significant event this year witnessed through the Program was the full operation of claims administration by Electronic Data Service (EDS) on contract with the State. At the first of the year, severe delays were experienced in timeliness of claims payment, as

was considerable confusion relating to claims submission. In recent months, these problems appear to have become resolved, but the Committee remains available to individual members to assist in resolving claims payment problems.

Finally, because some hospitals have begun contracting with independent laboratories for their services rather than having in-house labs, the Committee has recommended that independent laboratories be reimbursed for both inpatient and outpatient studies. Previously, independent labs could not be reimbursed for inpatient studies.

The problems with the Medical Assistance Program perceived by physicians and other groups have not been significantly altered through this year. The primary difficulty remains reimbursement, or the total amount of money available to the Medical Assistance Program. Because of the array of services covered by the Program and the amount of money dedicated to it, these difficulties can only continue and worsen. However, the Committee feels that it should continue its input into the Program.

I would like to express my thanks to all of the Committee members for their assistance and input, and to the membership for continuing service to Medicaid patients, regardless of the inconsistencies and problems with Medicaid.

Harold L. Bushey, M.D.
Chairman

Report of the Committee on School Health, Physical Education and Medical Aspects of Sports

The Committee on School Health, Physical Education and Medical Aspects of Sports held the Thirteenth Annual Medical Aspects of Sports Symposium with the University of Kentucky College of Medicine in Lexington, Kentucky, on March 19 and 20, 1984. This program attracted over 200 registrants, including coaches, team physicians and athletic trainers. The title of the program this year was "The Care of the High School and College Athlete." The program is self-sufficient, with all expenses being paid through contributions by pharmaceutical and equipment manufacturers and by program registration fees. One direct benefit of these symposiums is that coaches, trainers, and other school personnel directly involved with our State's athletes are better trained and better able to deal with minor med-

HOUSE OF DELEGATES

ical emergencies that occur on the State's high school athletic fields. The number of coaches being trained in CPR is another benefit.

I would like to convey my appreciation to John Allen, M.D., Program Chairman, who spent innumerable hours developing the program this year. I would also like to express appreciation to the University of Kentucky College of Medicine's Continuing Medical Education Department for the staffing and implementation of this effort. The 1985 Medical Aspects of Sports Symposium will be held on April 29-30 in Lexington, Kentucky, and the topic will be, "Prevention of Sports Related Injury."

The 1984 State Boys' Football Playoffs were covered from the time of the district playoffs to the State championship. The Committee members either directly offered services, or sought assistance from other team physicians in the State, to ensure that every playoff game in this State had medical coverage.

The first meeting of the KMA-KHSAA Subcommittee on Athletes' Health was held at the Kentucky High School Athletic Association's office building in Lexington on November 17, 1983. This Subcommittee includes physicians from the KMA School Health Committee; athletic trainers, coaches, school superintendents, principals and athletic directors of high schools; members of the KHSAA and the State Board of Education; and a Kentucky State Representative. The areas of concern expressed by this Subcommittee were that coaches should be educated in CPR and first aid and that guidelines should be developed for athletes in pre-season conditioning programs. The Subcommittee made recommendations which were directed to the KHSAA Board of Controls and Board of Directors and which were finally presented to and adopted by the State Board of Education on July 10, 1984. These recommendations, which will begin to be implemented in January, 1985, are as follows: 1. Head coaches in high-risk sports of baseball, basketball, football, soccer, and wrestling take a multiple-media course (be trained in first aid and be certified in CPR) and be recertified as needed, and to attend a Sports Medicine Symposium sanctioned by the KMA on an annual basis; 2. Officials be trained in CPR with recertification; 3. A study be initiated in reference to the feasibility of requiring athletic trainers for high school athletics in Kentucky and that the study take into consideration economic, certification and training factors, and any other related issues.

The coaches will be required, over a three-year period, to obtain the necessary certification. The Com-

mittee feels this is a giant step forward in the health care of Kentucky athletes.

The Committee also investigated an allegation that anabolic steroids were being used by some Kentucky athletes. After a thorough investigation, a letter, endorsed by the KMA Board of Trustees, was sent to each high school superintendent in the State discussing the detrimental health factors that may result and asking that everyone involved in high school athletics be made aware of the negative aspects associated with steroid use by young people. The Committee felt the use of anabolic steroids is not widespread in Kentucky, but we felt team physicians and school administrators should be made aware of the potential dangers and side effects.

The Committee members continue their active participation in the KHSAA pre-season football clinics for coaches and officials by personal presentations on "Conditioning and Athletic Injury Prevention." Included in the presentations is an assessment of head injuries that may be used by officials during an athletic event. The discussion of the recent regulation requiring certification in CPR by coaches will also be a part of these clinics.

The School Health Committee is very much appreciative of the cooperation of coaches, officials and school superintendents in the State of Kentucky that has been so helpful in continuing to monitor the safety of our athletes. I would like to personally thank all the members of the Committee on School Health, Physical Education and Medical Aspects of Sports who have so diligently served during this Associational year.

R. Quin Bailey, M.D.
Chairman

Report of the Advisory Committee to the Cabinet for Human Resources

The Advisory Committee to the Cabinet for Human Resources was created approximately five years ago to meet with the Secretary to discuss issues of mutual concern and to try to resolve significant problems. The Committee consists of the President, President-Elect, Chairman of the Board of Trustees, Secretary-Treasurer, and the Chairman of the Committee on State Legislative Activities.

Two meetings were held with the Secretary this year, as of this writing. The topics of conversation at the initial meeting included the Resolutions passed by the House of Delegates last September which involved the

HOUSE OF DELEGATES

Cabinet. These included those relating to: the State Health Plan; proposed changes to the certificate of need process; health care costs as addressed by the Coalition established by the Brown Administration; proposed regulations relating to hospital rate review; possible revisions to the Medical Practice Act; prescription drug abuse activities; a legislative proposal relating to a determination of death act; a proposal to increase the severity of penalties for driving under the influence of alcohol or drugs; vision retesting at the time of driver's license renewal; and the position of the House with regard to the Kentucky Medical Assistance Program. Because the first meeting took place in January while the Kentucky General Assembly was in session, a majority of the discussion was centered on the legislative issues.

A subsequent meeting centered primarily on the Medicaid Program and Citicare, as well as the health care access program that is addressed in other reports. At the time of the second meeting, which was held in April, the Cabinet was giving serious consideration to terminating the Citicare Program for a number of reasons, which included the fact that a statewide mechanism was felt to be more appropriate than one restricted to a single county. At that meeting, it was related that the Cabinet for Human Resources felt that the general intent of the health care access proposal was laudable, but because of restricted revenues the Cabinet's participation was uncertain.

Future meetings are being considered before the end of the Associational year, which may provide additional issues on which to report, but final arrangements have not been made.

It is suggested that the effects of the Committee's activities, although not quantitative, are very positive. These activities provide an informal channel of communication which promotes a two-way flow of information, and the members of the Committee are appreciative of the time and sincerity that the Secretary has devoted.

Donald C. Barton, M.D.
Chairman

Resolution Q

Jefferson County Medical Society Kentucky Medical Assistance Program

WHEREAS, the Commonwealth of Kentucky reportedly is developing the conceptual framework of a new statewide Medicaid Program; and

WHEREAS, after one controversial year the State discontinued the experimental Citicare Program in Jefferson County; and

WHEREAS, the previous administration decided upon all basic elements of the Citicare plan in advance, and physicians' well intended comments and concerns were largely ignored; now therefore be it

RESOLVED, that the Kentucky Medical Association urge the Kentucky Cabinet for Human Resources to give timely consideration to input from Kentucky physicians before finalizing or embarking upon any new statewide Medical Assistance Plan.

Resolution Z

Campbell-Kenton County Medical Society Medicare Mandatory Assignment

WHEREAS, the doctor/patient relationship is an important component of the practice of scientific and compassionate medicine; and

WHEREAS, the fee-for-service private practice of medicine is a good method of establishing a satisfactory doctor/patient relationship, and

WHEREAS, mandatory assignment of physician fees for medical services is continually being considered by the Federal Government; and

WHEREAS, such assignment could be destructive to the doctor/patient relationship and would be detrimental to the fee-for-service practice of medicine, now therefore be it

RESOLVED, that the KMA House of Delegates and the Kentucky Medical Association which it represents proclaim that the KMA is opposed to mandatory assignment of physician fees in the Medicare Program, and be it further

RESOLVED, that the KMA inform its members, the people of the Commonwealth of Kentucky, the Governor, State and Federal legislators and the Presidential candidates of our unalterable opposition to mandatory assignment of physicians' fees in the Medicare Program.

END OF CONSENT CALENDAR ITEMS

Report of the Community and Rural Health Committee

The Community and Rural Health Committee met on one occasion during the 1983-84 Associational Year. Several items of interest were duly considered by the Committee.

A representative of the Kentucky Energy Cabinet addressed the Committee on the subject of Acid Rain. Legislation has been introduced in Washington to sharply curtail the use of certain fossil fuels, especially some types of coal. Tremendous pressure is building on Ohio Valley communities to sharply curtail sulphur emissions. According to the Kentucky Energy representative, the proposals made to this point would not resolve the issue and would be unfair to Kentucky. The Committee believes that Acid Rain is a potential detriment to the health of our citizens, but at this point, we do not know what those hazards may be. We support further national study of this problem and suggest that efforts be made to develop appropriate national strategies to solve the problem.

The Committee reviewed the growing problem of child abuse and activities which the Kentucky Medical Association might consider to combat the problem. The Committee suggests that the 1985 KMA Annual Meeting Scientific Program Committee consider a presentation on child abuse.

The Committee recommends that county societies urge their members to be aware of the growing problem of child abuse and solicits their assistance in dealing with the problem by whatever means might seem appropriate locally. The Kentucky General Assembly has adopted legislation relating to child abuse, and in general, the law appears to be adequate. The KMA has been active in legislation relating to child abuse, and articles regarding this matter have appeared periodically in the *Journal of the Kentucky Medical Association*.

The Committee also reviewed the AMA Patient Medication Instruction (PMI) Sheet Program. These instruction sheets, which can be provided to patients, are available to physicians through the AMA. The Committee, while having some reservations with regard to some PMI sheets, agrees that instruction on medication could be helpful. In the future, PMIs will probably be routinely used due to legal ramifications.

I want to acknowledge the hard work of the Committee and to express our appreciation for the opportunity to serve the Kentucky Medical Association.

Don R. Stephens, M.D.
Chairman

RECOMMENDATIONS:

1. The Committee recommends that county societies urge their members to be aware of the growing problem of child abuse and solicit their assistance in dealing with the problem by whatever means might seem appropriate locally.

Recommendations, Reference Committee No. 5:

Reference Committee No. 5 reviewed the Report of the Committee on Community and Rural Health and recommends that Recommendation 1, relating to local efforts to address the problem of child abuse, be adopted.

Resolution G

McCracken County Medical Society Assumption of Liability for Government Program Recipients

WHEREAS, medical malpractice claims and premiums are increasing at an alarming rate in the state of Kentucky; and

WHEREAS, many well managed physician-captive malpractice insurance companies are in imminent danger of or already have collapsed under the burden of litigation filed by Medicare, Medicaid, and State aid patients; and

WHEREAS, tort reform or constitutional amendment appears unlikely in the state of Kentucky; and

WHEREAS, State and Federal Governments continue ongoing programs aimed at reducing third-party payments to physicians; now therefore be it

RESOLVED, that the KMA actively research all possibilities of the State and Federal Governments assuming all liability in the care of Medicare, Medicaid, and State aid patients.

Recommendations, Reference Committee No. 5:

The Reference Committee next considered Resolution G, Assumption of Liability for Government Program Recipients, submitted by McCracken County Medical Society. It was noted that KMA continues to monitor the activities of AMA in this regard.

HOUSE OF DELEGATES

Reference Committee No. 5 therefore recommends that Resolution G be filed.

The motion was seconded from the floor.

The Chairman of the Board of Trustees, Donald C. Barton, M.D., was recognized, and made a substitute motion that Resolution G be referred to the KMA Board of Trustees with instructions to continue to monitor the activities of the AMA with regard to government program recipients.

The motion was seconded and carried.

Resolution S Jefferson County Medical Society Deficit Reduction Act of 1984

WHEREAS, Medicare amendments passed by Congress with the Deficit Reduction Act of 1984 threaten to deny Medicare beneficiaries the ability to select the physician from whom they will receive care; and

WHEREAS, provisions of the act which mandate restrictive fee schedules for clinical laboratories will deprive Medicare beneficiaries and others of complete medical services by promoting the reduction of those services, particularly in small and rural communities; and

WHEREAS, the Act freezes nonparticipating physicians' fees to Medicare patients until October 1, 1985, and authorizes penalties against nonparticipating physicians who raise their charges, thus singling out physicians alone among all segments of our society in their freedom to enter into contractual agreements with patients; now therefore be it

RESOLVED, that the Kentucky Medical Association express to our representatives in Washington and at the American Medical Association our objections to the Deficit Reduction Act of 1984 and its regulations, written and proposed, particularly as they apply to laboratory reimbursement and to nonparticipating physician penalties; and be it further

RESOLVED, that the Kentucky Medical Association House of Delegates voice unanimous support of the American Medical Association Board of Trustees in its legal challenge of the constitutionality of the new Medicare amendments.

Resolution U McCracken County Medical Society Deficit Reduction

WHEREAS, the present regulatory guidelines proposed by the Medicare and Medicaid Budget Reconciliation Amendment of 1984 are in restraint of free trade; and

WHEREAS, the new regulations are in conflict with the principles of our free enterprise system; now therefore be it

RESOLVED, that the Kentucky Medical Association pursue legal research and investigate the feasibility of legal recourse of such an infringement.

Resolution V Warren County Medical Society Medicare Amendments to the Deficit Reduction Act of 1984

WHEREAS, the Federal Government has seen fit to again reduce Medicare benefits to the ever growing number of senior citizens and medically indigent, disabled persons by means of Medicare amendments to the Deficit Reduction Act of 1984; and

WHEREAS, the regulations are constrictive to the individual physician's choices to serve these citizens; and

WHEREAS, these amendments seem contrary to free enterprise, the backbone of our nation's economy; and

WHEREAS, the law seems to usurp some of the rights of access to the free enterprise system, thus discriminating against individual physicians; and

WHEREAS, we regard this as morally reprehensible; now therefore be it

RESOLVED, that the Kentucky Medical Association condemn the portions of the Deficit Reduction Act of 1984 which apply to Medicare regulations.

Recommendations, Reference Committee No. 5:

Reference Committee No. 5 considered Resolution S, submitted by the Jefferson County Medical Society; Resolution U, submitted by McCracken County Medical Society; and Resolution V, submitted by Warren County Medical Society; all of which address the Deficit Reduction Act of 1984.

The Reference Committee felt that the intent of Resolution U and Resolution V was adequately expressed

HOUSE OF DELEGATES

by Resolution S, and therefore recommends that Resolution S be adopted in lieu of Resolutions U and V.

Reference Committee No. 5 would like to express its appreciation to the authors of all reports and Resolutions reviewed for the time and efforts spent in gathering this information for the House of Delegates.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 5 as a whole, as amended.

I would sincerely like to thank the other members of the Committee: C. Dale Brown, M.D., Paducah; John W. McClellan, Jr., M.D., Henderson; Mark F. Pelstring, M.D., Covington; and Carmel Wallace, Jr., M.D., Corbin, for their work. I would also like to thank Sharon Heckel for her assistance in the preparation of this report.

Reference Committee No. 5

Preston Nunnolley, M.D., Chairman

Lexington

C. Dale Brown, M.D.

Paducah

John W. McClellan, Jr., M.D.

Henderson

Mark F. Pelstring, M.D.

Covington

Carmel Wallace, Jr., M.D.

Corbin

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 6

Reference Committee No. 6 considered the following Reports and Resolutions:

41. Report of the Judicial Council
42. Report of the Rural Kentucky Medical Scholarship Fund Board of Directors
43. Report of the Physician-Attorney Liaison Committee

44. Report of the Membership Committee
45. Report of the Placement Services Committee
46. Report of the Committee on Constitution and Bylaws
47. Report of the McDowell House Board of Managers
 - Resolution B - Formation of KMA Resident Business Section (Board of Trustees)
 - Resolution C - Associate Member Dues (Board of Trustees)
 - Resolution D - AMA Alternate Delegates as Members of the KMA Board of Trustees (Board of Trustees)
 - Resolution E - Hospital Medical Staff Section (Board of Trustees)
 - Resolution BB - Members of the KMA Board of Trustees (Campbell-Kenton County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 6 reviewed the following items and recommends they be adopted or filed as indicated, by the consent of the House, without discussion:

41. Report of the Judicial Council - filed
42. Report of the Rural Kentucky Medical Scholarship Fund Board of Directors - filed
43. Report of the Physician-Attorney Liaison Committee - adopted
44. Report of the Membership Committee - filed
47. Report of the McDowell House Board of Managers - adopted

Reference Committee No. 6 would like to express its appreciation to the authors of the reports, which have been filed or adopted, for the time and effort spent in gathering this information for the House of Delegates.

Reference Committee No. 6 would also like to express appreciation to Laman A. Gray, Sr., M.D., for his dedicated service to the McDowell House for many years.

Report of the Judicial Council

The Judicial Council is appointed by the House of Delegates. It is a five-man group which includes the Secretary-Treasurer, and Legal Counsel meets routinely with the Council. It is charged with serving as the final

HOUSE OF DELEGATES

arbiter of all matters relating to the ethics of medical practice and propriety of members' actions.

The Judicial Council met five times this year and has maintained an active agenda. The majority of the items considered related to patient complaints, questions involving membership status because of disciplinary actions undertaken by other agencies, and ethical questions relating to medical practice.

In the area of patient complaints, it should be pointed out to the membership that many of them could have been settled, or may not have arisen at all, if better communication between the physician and patients had occurred. Many complaints of this nature ultimately turned out to be of minor concern from the medical practice standpoint, but these instances do serve to point out the absolute need for rapport and open dialogue between doctors and their patients.

Some examples of patient complaint matters that the Council dealt with include a charge of misdiagnosis and inappropriate prescribing of medications which was not reflected in the medical records. With the Council's intervention, the situation was finally resolved. In another instance, a patient complained that a physician had refused to render treatment, but on investigation it was learned the patient was a chronic abuser and overutilizer. All necessary medical care had been rendered, and the patient was so advised. A third and unique patient complaint alleged that a physician had refused to render treatment by not providing appropriate advice on a pregnancy. It was learned subsequently that the patient fell in the high-risk category and had been advised by the physician to seek care from a specialist in high-risk obstetrics, as well as from specialists in other areas involving chronic conditions that the patient had.

Interaction with the Board of Medical Licensure increased this year because of a number of instances involving sanctionary measures against physicians that questioned physicians' behavior and medical practice patterns. Some cases were received by the Judicial Council from the Claims and Utilization Review Committee because of fees so excessive as to be unethical and duplication of services by physicians beyond any reasonable degree. In each of these cases, the Council found that the actions of these physicians were unethical to the point that their licensure status should be examined.

Likewise, the Council receives routine reports from the Board of Medical Licensure of actions that Board has taken against physicians' licenses. These actions

are considered from the standpoint of KMA membership status, and the Council has adopted a policy that when the Board of Medical Licensure revokes or indefinitely suspends a license, KMA membership will be terminated. This membership termination has been declared three times so far this year.

In other areas involving ethics and physician behavior, the Council was asked to consider a complaint that a physician would not release patient records to another physician because the patient had not paid his bill. In response to the situation, the Council recited the policy of the AMA Judicial Council which prohibits this practice. Of similar nature, the Council would like to point out and reaffirm the policy of KMA that physicians should provide patients with itemized Medicare bills before they are paid. All physicians are urged to provide itemized Medicare statements to patients, regardless of whether they accept Medicare assignment or bill the patients directly.

One physician requested an opinion from the Council regarding the propriety of renting equipment from other physicians for outpatient or in-office use. The Council determined that there was nothing unethical about this practice.

The Council considered a matter that may have application to the entire membership involving the Kentucky Peer Review Organization. Apparently, in several areas of the state, KPRO had determined that some physicians may have been inappropriately admitting patients. This determination was made based on a review of admission statistics. It was later determined that the statistics did not reflect the true situation, and inappropriate admissions were not being made. To this end, contact was made with the KPRO Board and that Board was requested to take no punitive measures against physicians unless a first-hand investigation was made.

During the year, the Council developed a set of advertising guidelines which was mailed to the membership. With the probability of increased physician advertising, as well as advertising by hospitals and other medical service delivery organizations, it was felt that this guide would be of some assistance. Advertising remains controversial in the minds of many physicians, and the Council would urge the membership that any advertising used or contemplated provide only basic information and should be undertaken with decorum.

Through its work this year, the Council has observed trends that all physicians have obviously confronted with the competitive forces that seem to be increasing. It is not the position of the Council to comment on

HOUSE OF DELEGATES

competition, as such, but it is important to note that competitive effects may influence a tendency to let competition override ethical considerations. In spite of what may well be the beneficial effects of competition, the Council would urge all members to conduct themselves in an ethical manner, studiously avoid exploitation of patients, and conduct their practices in a dignified manner.

On a final note, Doctor Glenn Bryant's term on the Council expires this year. Doctor Bryant has served selflessly and with great effect, and his strong, positive influence on the Council's deliberations will be missed. With Doctor Bryant's departure, there will be a vacancy on the Council, and an appointment must be made by the House of Delegates. The Council has made suggestions to the Board of Trustees for nominees for his position.

I would like to thank all the members of the Council for their devotion to maintaining the ethics of the profession and for their dedication to the Council's work. I would also like to express my thanks to the membership for its support.

J. Campbell Cantrill, M.D.
Chairman

Report of the Rural Kentucky Medical Scholarship Fund

The Rural Kentucky Medical Scholarship Fund continues to provide financial assistance to medical students in return for their commitment to practice in underserved areas of the State. We have directly assisted over 500 medical students in our 38-year history. Throughout this time, our success has been made possible by generous contributions from physicians, the public and the State.

However, for the first time since we began revitalizing our reserve several years ago, we are faced with financial difficulties. While not overwhelming, the decision by the State to refrain from providing additional financial support to the Fund does prompt concern.

As we indicated in our last report, the Fund has become heavily dependent upon State support in recent years. This came about for several reasons, not the least of which was our success in placing physicians in critical areas, resulting in the forgiveness of their loan obligation. Regardless, last year we saw the State begin to impose additional contractual requirements on the Fund as conditions precedent to further appropriations.

We felt that might be an indicator of things to come and our surmise was an accurate one. As the State's financial difficulties increased and as additional physicians joined the ranks, priorities changed. We cannot ignore this and unfortunately, we too will have to tighten our purse strings.

That is certainly not to say that the Fund is shutting down. We will still provide funding to six new applicants this year and our renewals will number 19. While this is below our desired funding level, it still serves to provide needed assistance in difficult financial times.

In an attempt to augment our funds, solicitations were distributed throughout the State. This resulted in \$7,285 in additional funding. We will continue in that vein in an attempt to ensure maintenance of the fine record we have enjoyed over the years. Our public relations campaign will also continue to inform legislators, business leaders, and county government officials across the State of the program's efforts.

With some regret, I must report that the number of instances where recipients seek to avoid fulfillment of their obligation to the Fund is on the increase. Collection efforts and the monitoring of recipient practice activities are beginning to occupy the majority of our staff's time. Legal expenses connected with litigation are, unfortunately, becoming a necessary incident to running the Fund.

While my report may not be as upbeat as some have been in the past, it necessarily reflects our changing circumstances. We will continue to make our best efforts to ensure that the Fund remains viable, and any assistance you can provide in that regard will be greatly appreciated.

Henry S. Spalding, M.D.
President

Report of the Physician-Attorney Liaison Committee

The Physician-Attorney Liaison Committee met on April 6 and May 9, 1984, to review the Interprofessional Code and to discuss matters of mutual concern. The Committee spent considerable time discussing the growing professional liability problem. Due to the wording of the Kentucky Constitution and Kentucky Supreme Court interpretations, the Committee is not optimistic that substantial changes can be made without Constitutional amendments.

The Committee receives numerous inquiries regard-

HOUSE OF DELEGATES

ing scheduling and charging for physician depositions, court appearances, *etc.* Across the board, most physicians and attorneys have few problems in this area. However, there are isolated cases when this does present problems. For this reason the Committee has developed the recommendation which follows this report and relates to Section VI of the Interprofessional Code.

The Committee has agreed in the future to review and render opinions regarding whether professional fees are reasonable or unreasonable when requested to do so by either an attorney or a physician.

We urge physicians to utilize the Physician-Attorney Liaison Committee and to submit inquiries or items which the Committee might consider during this coming year. Dialogue between the two professions is useful and a forum to settle disputes is of extreme importance to both honored professions.

Please allow me to thank members of this Committee for their interest in the Committee's work and for their support to the profession.

Thomas M. Marshall, M.D.
Chairman

RECOMMENDATION:

(Note: Additions are underlined and deletions are bracketed)

1. VI. COMPENSATION FOR MEDICAL REPORTS, DEPOSITIONS, COURT APPEARANCES AND OTHER SERVICES.

It is impractical to establish precise rules governing a physician's fees for medical reports, reviewing medical records, conferences, opinions, depositions, [and] court appearances, copies of medical records and other services. It is important, however, that fees be reasonable and that they be discussed in advance by the physician and the attorney. In this way, the major cause of misunderstanding and dissatisfaction will be eliminated. Generally, the attorney who requests these services of a physician is primarily responsible for prompt payment of the physician's reasonable fees. **Under no circumstances may a physician charge a fee for such services which is contingent upon the result of the lawsuit.**

(SECOND PARAGRAPH REMAINS UNCHANGED)

Report of the Membership Committee

Knowing that the strength of the Association lies in the collective activity of its individual members, the Membership Committee is well aware of its responsibility to attract and retain members. This task is not as automatic as it used to be as the needs and wants of our members and prospects are rapidly changing.

We have undertaken an extensive study of KMA non-member records in an effort to better determine physicians eligible for membership in KMA and the number of those who are not currently members. In our research, we have categorized nonmembers by age, sex, specialty and whether or not they are a foreign graduate. Our data revealed that 1,100 or 72.5% of non-member eligible physicians are under 40 years of age. Of that under-40 age group, 19.3% are female; 11.8% are foreign graduates; and 24.1% are under 30. Of that same group, 74.1% are from Fayette and Jefferson counties. Note by specialty, 21.5% of the under-40 nonmembers are in Internal Medicine; 15.6% are in Family/General Practice; 11.6% are in Pediatrics; and 9.1% are in Surgery. Clearly, the under-40 age group should be the group to which the majority of our recruitment efforts are expended.

We also looked at a breakdown of members by specialty. Some of the more significant statistics show that:

Of 258 Anesthesiologists licensed in Kentucky, 165 are members.

Of 183 physicians who indicated their primary specialty to be Emergency Medicine, 64 are members.

Of 829 physicians who indicated their primary specialty to be Family Practice, 595 are members.

Of 429 physicians who indicated their primary specialty to be General Practice, 203 are members.

Of 774 Internists, 443 are members.

Of 72 Neurologists, 43 are members.

Of 362 OB-GYN specialists, 263 are members.

Of the 430 Pediatricians licensed in Kentucky, 250 are members of KMA.

Of 332 physicians who indicated their primary specialty to be Psychiatry, 194 are members.

Other areas with low membership percentages include Radiology with 211 members out of 302 licensed physicians and Surgery with 360 out of 531 licensed physicians.

As a result of this information, staff and the Mem-

HOUSE OF DELEGATES

bership Committee have developed the following project.

A full-time staff person has been assigned the responsibility of membership development and we feel this will be a tremendous asset in developing, implementing, and monitoring our recruitment and retention efforts.

The nonmember eligible physician under 40 will be our primary target group. Studies have shown that physicians under 40 relate more to the tangible benefits of membership than they do the representational aspects of membership. As a result, we have developed a series of five letters specifically designed for the under-40 potential member. The first letter was mailed in June and placed major emphasis on the tangible and intangible benefits of membership in KMA. The other four letters followed in three-week intervals to those who did not respond to the preceding letter. The second letter highlighted the services of the KMA Credit Union; the third, the services of KMCO and the practice management aspect of the company; the fourth letter dealt with the Annual Meeting and the opportunity for continuing medical education; and the fifth letter, which will be sent just prior to the KMA Annual Meeting in September, will emphasize KMA's role in solving the liability insurance crisis and its continuing interest in creating companies to benefit Kentucky physicians. This final letter will also stress joining for the 1985 Associational year.

Although the results of this effort are inconclusive at the writing of this report, we feel that we are touching base with all the physicians registered in Kentucky who have either elected not to join or were never asked. The Committee feels strongly that these efforts must be supported by the general membership, as our best recruiting tool is a peer-to-peer approach.

Along these lines, we are also developing a series of testimonial letters from leaders in various specialty areas to be sent to their colleagues who are nonmembers. The idea is that the individual who writes the nonmember will develop the letter in his or her own words; KMA will duplicate it and cover the cost of mailing.

The Committee will continue to analyze the data provided by staff in determining target groups and the various avenues to promote membership to these groups.

In addition to special mailings, membership recruitment is done on an ongoing basis with physicians who are newly licensed or have returned to the state to practice. These nonmembers receive correspondence from

the KMA President and their Trustee asking them to participate in organized medicine. Physicians joining the Association for the first time are sent a membership certificate and brochures concerning the many benefits provided through the subsidiary companies.

A major effort has been made this year to work with the residents in Kentucky. Staff has held numerous meetings with resident and hospital staff leaders at the University of Kentucky and the University of Louisville and is attempting to organize a Resident Business Section similar to the Medical Student Section formed in 1982. President Holloway represented the Association at the Resident Orientation Program at U.K. and I spoke on the benefits of KMA membership at a similar program at U of L. We feel these efforts are worthwhile, as statistics have shown that medical students and residents are three times more likely to join organized medicine as regular members if they also belonged to the state medical association while in training.

The Membership Committee has made a number of recommendations to the Executive Committee regarding specific recruitment proposals which we feel would enhance our efforts along these lines. A breakdown of membership figures as of June 30, 1984, reveals:

Physicians eligible for membership	5,853
Active KMA Members	3,344
In-Training	112
Associate Members	134
Inactive Members	83
Life Members	<u>345</u>
TOTAL KMA MEMBERS	<u>4,018</u>
Nonmember Physicians	1,835

The Membership Roster has been printed this year as a separate publication rather than as a part of the *KMA Journal*. We felt this would better serve the membership and the public as a resource tool for information on physician members throughout the state.*

On behalf of the Committee members, we urge your participation and interest in the recruitment of your fellow physicians. By encouraging our non-member colleagues to join us, we are making the voice of medicine and the voice of this Association a much more viable

***Editorial Note:** Following publication of the Membership Committee's Report, it was decided that the Directory would be published sometime in 1985 rather than 1984.

HOUSE OF DELEGATES

instrument in dealing with the many issues facing medicine today.

Harold D. Haller, Sr., M.D.
Chairman

Report of the McDowell House Board of Managers

This was a memorable year for the McDowell House Board of Managers. Most significant was the September resignation of Laman A. Gray, Sr., M.D., a long-time Chairman of the McDowell House Board, whose leadership for over 20 years was responsible for remarkable strides in restoration and preservation and in procurement of additional financial support for this medical museum and shrine. The members of the Board of Managers have rededicated themselves to continuing this legacy of funding and maintenance of the House and Apothecary for the future.

The year saw many needed improvements in the House proper, the details of which are too numerous to list; noteworthy among these were the long-needed fire and burglar systems with linkage to the Danville fire and police departments. Likewise, the revision and improvement of the hazardous stairways leading to the basement comfort facilities have relieved a dangerous situation which might have resulted in serious liability for the House. Projected long-range maintenance needs of this fragile and venerable museum indicate the continued yearly allocation of significant funds for maintenance. Worthy cost-of-living adjustments in salaries to the dedicated House Manager and her able staff were granted in December, 1983.

The continued efforts of the Kentucky Medical Association Auxiliary led to contributions totaling \$6,030.63 for the year and to untold volunteer work hours and quality maintenance of the Home's interior and furnishings. Many other organizations, including historical societies, and individuals have lent support to various refurbishing items in the House, as well as the yard and garden plantings.

Increase in use of the House by state and regional medical groups reflects the increased interest and appreciation of the Home and apothecary. Noteworthy was the increase of sales and admissions, as well as increase of the "Friends" gifts to slightly more than \$10,000, along with continued strong support from many national and state medical organizations. Danville's bi-

centennial year was the stimulus for a unique gathering of around 200 McDowell and Shelby family descendants from many states, including California. A considerable part of this celebration centered around activities at the McDowell House.

For the year 1983-84, total income of \$44,481.36 was eclipsed by total expenses of \$52,558.21, reflecting the considerable necessary repairs and renovations. This deficit of just over \$8,000 was managed by transfer of funds from the reserve for home improvement, as well as from the quasi-endowment to Board-designated funds. As of May 31, 1983, current assets totaled \$34,193.55, reflecting a stable financial position.

In June, 1984, realization of a long-time goal of a significant permanent endowment fund was stimulated by The James Graham Brown Foundation's offer of a \$50,000 grant to the McDowell House to be matched by a fund drive for an additional \$100,000. This proposal was endorsed by the Board of Managers, and, if approved by the Kentucky Medical Association, a fund drive will be initiated soon. Annual income from such a permanent endowment fund would aid in the continuing underwriting of funds for support of this worthy museum and shrine.

The Chairman gratefully acknowledges the time and energies of the members of the McDowell House Board in support of our McDowell Home activities for the year.

David W. Kinnaird, M.D.
Chairman

RECOMMENDATIONS:

1. The McDowell House Board of Managers recommends that the Kentucky Medical Association endorse the McDowell House Board of Managers initiating a \$100,000 fund drive, recognizing that The James Graham Brown Foundation would then provide a \$50,000 grant to the McDowell House.

END OF CONSENT CALENDAR ITEMS

Report of the Placement Services Committee

The Placement Services Committee is pleased to announce the completion of plans for the Sixth Annual Physician Recruitment Fair to be held at the Hyatt

HOUSE OF DELEGATES

Regency/Lexington Convention Center on Saturday, September 15, 1984, from 11:00 a.m. to 3:00 p.m. Flyers have been sent to residents and physicians in seven states, and posters have been forwarded to hospitals where there are residency programs. There will be 40 booths available for exhibitors. Press releases have been sent to the media in the state of Kentucky.

The Fifth Annual Physician Recruitment Fair was held on August 27, 1983, at the University of Louisville School of Medicine campus. The Fair was well attended. However, it was a very warm day; and the Exhibitors indicated on an opinion survey that they prefer we hold the Physician Recruitment Fairs indoors in the future.

We trust attendance and participation in the Fair program will continue to warrant the substantial effort which KMA puts forth in sponsoring it. We would also like to thank those members of the House Staff at both the University of Louisville and the University of Kentucky Medical Schools for their kind assistance. As Chairman, I wish to express my appreciation to the KMA staff and the members of the Committee who assisted with the development of this program and its presentation.

We continue to serve as a clearinghouse of information for both physicians seeking opportunities in Kentucky and communities searching for physicians. The "Practice Opportunities In Kentucky" booklet is revised every six months and distributed upon request. Monthly, the "Physicians Seeking" list is printed and disseminated to interested communities and physicians. Our services are provided free to any community or physician requesting them.

Don E. Cloys, M.D.
Chairman

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed the Report of the Placement Services Committee and recommends it be filed.

Data was heard to the extent that the Physician Recruitment Fair was a \$5,000 annual loss to the Kentucky Medical Association. Since the benefits of placement seem to be marginal considering the cost, the Reference Committee recommends termination of the Physician Recruitment Fair.

Report of the Committee to Study the Constitution and Bylaws

The Committee to Study the Constitution and Bylaws met in order to review KMA's provision relating to "life membership" and a proposal for changing the dues structure for "associate members."

The proposal for an increase in the "associate member" dues had been referred to the constitution and Bylaws Committee by the Membership and the Executive Committees. In anticipation of the Board of Trustees ratifying its Executive Committee's request, a revision to the Bylaws was fashioned and is hereinafter set forth for your consideration as Recommendation 1.

During the course of its review of the KMA Bylaws' provision relating to "life membership," the Committee determined that our current method for handling this matter is closely akin to that used by AMA, is effective and, therefore, warrants no change at this time. However, the Committee felt it was indicated that the study of AMA's specifications for "life membership" remain ongoing. The Committee noted that once AMA's situation has fully stabilized, further changes in the wording of KMA's "life membership" provisions may be appropriate.

The Committee also determined that the reference to Chapter VI, Section 8, contained in the "life membership" provision of the Bylaws results from deliberative action by the KMA House of Delegates. The current language was adopted during the 1971 session of the KMA House of Delegates in response to Resolution B then offered by the Fayette County Medical Society.

Robert L. McClendon, M.D.
Chairman

RECOMMENDATION:

(Note: This recommendation is set forth in legislative amendment format with the new proposal being underscored and the language to be deleted set off by brackets and accented by lines through the wording).

1. CHAPTER IX. ASSESSMENTS AND EXPENDITURES

Section 1. The annual dues for membership in this Association shall be as follows: (1) Active Members, \$300; (except those physicians elected to KMA membership within six months of the completion of their residency, fellowship or fulfillment of government-

HOUSE OF DELEGATES

obligated service shall pay \$150 their first full year of membership); (2) Life Member, no dues; (3) Associate Members, [~~\$25~~] \$50; (4) In-Training Members, \$20; (5) Inactive Members, \$25; (6) Student Members, no dues; (7) Service Members, no dues; (8) Special Members, no dues. The dues during the first year for any active member shall be pro-rated on the basis of the date of his application. Dues fixed by these Bylaws shall constitute assessments against the component societies. Unless otherwise instructed by the Board of Trustees (which may institute centralized billing) the Secretary of each component society shall forward its assessments, together with its properly classified roster of all officers and members, list of delegates, and list of non-affiliated physicians of the county, to the Secretary-Treasurer of this Association as of the first day of January each year.

Resolution C KMA Board of Trustees Associate Member Dues

WHEREAS, the KMA Membership Committee, after investigation and review of the various KMA membership categories, recommended a change in the dues structure for "associate members"; and

WHEREAS, the Board of Trustees of the Kentucky Medical Association believes the recommendations of the Membership Committee are well-founded and warrant affirmative action, now therefore be it

RESOLVED, that Chapter IX, Section 1, of the KMA Bylaws be amended to read as follows:

Chapter IX, Section 1. The annual dues for membership in this Association shall be as follows: (1) Active Members, \$300 (except those physicians elected to KMA membership within six months of the completion of their residency, fellowship or fulfillment of government-obligated service shall pay \$150 their first full year of membership); (2) Life Member, no dues; (3) Associate Members, [~~\$25~~] \$50; (4) In-Training Member, \$20; (5) Inactive Members, \$25; (6) Student Member, no dues; (7) Service Members, no dues; (8) Special Members, no dues. The dues during the first year for any active member shall be prorated on the basis of the date of his application. Dues fixed by these Bylaws shall constitute assessments against the component societies. Unless otherwise instructed by the Board of Trustees (which

may institute centralized billing) the Secretary of each component society shall forward its assessments, together with its properly classified roster of all officers and members, list of delegates, and list of non-affiliated physicians of the county, to the Secretary-Treasurer of this Association as of the first day of January each year.

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed the Report of the Committee on Constitution and Bylaws, together with Resolution C, Associate Member Dues. The Reference Committee recommends that both Recommendation #1 of the Report of the Committee on Constitution and Bylaws, and Resolution C, be adopted.

Resolution B KMA Board of Trustees Formation of KMA Resident Business Section

WHEREAS, the House of Delegates established a KMA Student Business Section in 1982 in an effort to encourage the active involvement of students in the affairs of organized medicine; and

WHEREAS, a membership/participation "gap" now exists between medical school and active practice due to the absence of a Resident Business Section, although there is an In-Training Membership Category; and

WHEREAS, the Executive Committee of the Board of Trustees has encouraged efforts to bring about the establishment of a Resident Business Section to increase participation in the issues which affect young physicians entering practice; and

WHEREAS, resident physicians in Kentucky have a genuine interest in the activities of organized medicine within this state and nationally; and

WHEREAS, the need for solidarity within the medical profession is ever increasing; and

WHEREAS, the active participation by residents is vital to the future of organized medicine and solidarity of the medical profession; therefore be it

RESOLVED, that the Kentucky Medical Association authorize the establishment of a KMA Resident Business Section; and be it further

RESOLVED, that upon a determination by the KMA Board of Trustees that the Resident Business Section Constitution and Bylaws are not in conflict with the Constitution, Bylaws and Board policy of the KMA, the

Journal of the Kentucky Medical Association

HOUSE OF DELEGATES

Resident Business Section shall be duly authorized to proceed with its activities, and be it further

RESOLVED, that should any question later arise regarding conflict between the Resident Business Section Constitution and Bylaws and the Constitution, Bylaws and Board policy of the Kentucky Medical Association, the KMA Board of Trustees shall be the final arbiter of such questions; and be it further

RESOLVED, that Chapter I, Section 2(c) of the KMA Bylaws be amended as follows to allow for the Resident Business Section:

(Present)

Chapter I, Section 2(c)

In-Training Members, Interns, residents and teaching fellows who are doctors of medicine or osteopathy and who have complied with all pertinent regulations of the Kentucky State Board of Medical Licensure. In-training members shall have the right to vote and receive all publications of the Association, but shall not be counted in determining the number of delegates to which their county society is entitled in the House of Delegates.

(Proposed)

Chapter I, Section 2(c)

In-Training: Doctors of medicine or osteopathy who have complied with all pertinent regulations of the Kentucky State Board of Medical Licensure and who are serving in AMA approved training programs in Kentucky shall be eligible for membership in the Resident Business Section of the Kentucky Medical Association. The Resident Business Section shall be governed by its own Constitution and Bylaws, which shall not be in conflict with the Constitution, Bylaws and Board policies of the parent Kentucky Medical Association. Should any questions arise regarding the existence of a conflict, the KMA Board of Trustees shall be the final arbiter of such questions. In-Training members shall have the right to vote and receive all publications of the Association, but shall not be counted in determining the number of delegates to which their county society is entitled in the House of Delegates. The Resident Business Section will be represented in the KMA House of Delegates by one voting representative elected by the Governing Council of the Resident Business Section.

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed Resolution B, Formation of KMA Resident Business Section, intro-

duced by the KMA Board of Trustees. Reference Committee No. 6 recommends the adoption of this Resolution.

Resolution D

KMA Board of Trustees

AMA Alternate Delegates as Members of the KMA Board of Trustees

WHEREAS, the Board of Trustees of the Kentucky Medical Association believes authority for operation and control of this Association should be vested in the Officers and Trustees duly elected by the KMA membership; and

WHEREAS, this Association is unique in having included within the membership complement of its Board of Trustees those physicians who make up the KMA delegation to the American Medical Association; and

WHEREAS, one of the factors considered at the time the AMA delegation was made a part of the Board was the limited number of people involved; and

WHEREAS, the AMA delegation has grown and will continue to grow to the point where it constitutes a greater percentage of Board membership than was intended; and

WHEREAS, the increased size of the Board may make it difficult to effectively conduct the business of the Association; now therefore be it

RESOLVED, that in order to assure that authority for operation and control of this Association is vested in the Officers and Trustees duly elected by the KMA membership, Chapter VI, Section 1, of the KMA Bylaws be amended to read as follows:

Chapter VI, Section 1. The Board of Trustees shall be the executive body of the House of Delegates and between sessions of the House of Delegates shall exercise the powers conferred upon the House of Delegates by the Constitution and Bylaws. The Board of Trustees shall consist of the duly elected Trustees and the President, the President-Elect, the Vice-President, the immediate Past-President, the Speaker, and Vice Speaker of the House of Delegates, the Secretary-Treasurer, and the Delegates [and Alternate Delegates] to the American Medical Association. **Alternate Delegates to the AMA holding office as of January 1, 1985, shall be members of the Board of Trustees until their respective successors assume the Alternate Delegate positions in accord with these Bylaws. Such successor Alternate Delegates shall not be members of the Board of Trustees.** The Executive Commit-

HOUSE OF DELEGATES

tee of the Board of Trustees shall consist of the President, the Vice-President, the President-Elect, the Secretary-Treasurer, the Chairman of the Board of Trustees, the Vice Chairman of the Board of Trustees, and two Trustees to be elected annually by the Board of Trustees. A majority of the full Board, and a majority of the full Executive Committee, to-wit, 5, shall constitute a quorum for the transaction of all business by either body. Between sessions of the Board, the Executive Committee shall exercise all of the powers belonging to the Board except those powers specifically reserved by the Board to itself.

Recommendation, Reference Committee No. 6:

Reference Committee No. 6 reviewed Resolution D, AMA Alternate Delegates as Members of the KMA Board of Trustees, introduced by the Board of Trustees. Testimony was heard from the AMA Alternate Delegates and the AMA Delegates and several interested persons. It was felt that with the amount of effort and work devoted by the Alternate Delegates, they should continue to have a vote as members of the Board of Trustees. Therefore, the Reference Committee recommends rejection of Resolution D.

Resolution E KMA Board of Trustees Hospital Medical Staff Section

WHEREAS, in September, 1983, the Kentucky Medical Association House of Delegates adopted Resolution F, which resolved:

"That the Board of Trustees be requested to appoint a special ad hoc committee to investigate the concept and develop a possible plan to implement a Hospital Medical Staff Section of the Kentucky Medical Association; and

"That this committee to study the formation of the Hospital Medical Staff Section shall report its findings and recommendations to the Delegates at least 60 days prior to the 1984 Annual KMA Meeting," and

WHEREAS, the duly appointed Ad Hoc Committee has circulated its findings and recommendations to the members of the KMA House of Delegates, and

WHEREAS, the KMA Board of Trustees has reviewed and analyzed the findings and recommendations of that Committee, and

WHEREAS, as a result, the KMA Board of Trustees

feels this Association will benefit from the creation of a Hospital Medical Staff Section, now therefore be it

RESOLVED, that the Kentucky Medical Association authorize the establishment of a KMA Hospital Medical Staff Section, and be it further

RESOLVED, that upon a determination by the KMA Board of Trustees that the Hospital Medical Staff Section Constitution and Bylaws are not in conflict with the Constitution, Bylaws and Board policy of the KMA, the Hospital Medical Staff Section shall be duly authorized to proceed with its activities, and be it further

RESOLVED, that should any question later arise regarding conflict between the Hospital Medical Staff Section Constitution and Bylaws and the Constitution, Bylaws and Board policy of the Kentucky Medical Association, the KMA Board of Trustees shall be the final arbiter of such questions, and be it further

RESOLVED, that the KMA Bylaws be amended by creating a new Section 3 to Chapter I, Membership, which shall read as follows:

Chapter I, Section 3. **Hospital Medical Staff Section. There shall be a special section for hospital medical staff physicians who already hold membership in KMA. The Hospital Medical Staff Section (HMSS) shall be governed by its own Constitution and Bylaws, which Constitution and Bylaws shall not be in conflict with the Constitution, Bylaws and Board policies of the parent Kentucky Medical Association. Should any questions arise regarding the existence of a conflict, the KMA Board of Trustees shall be the final arbiter of such questions. The Hospital Medical Staff Section shall elect a Delegate and Alternate Delegate to the KMA House of Delegates. The Delegate to the KMA House of Delegates, or his Alternate as the case may be, shall be a voting member of the House and may present resolutions on behalf of the HMSS.**

Current Section 3 will then be renumbered Section 4, and current Section 4 will then be renumbered Section 5.

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed Resolution E, introduced by the Board of Trustees, regarding the Hospital Medical Staff Section. Reference Committee No. 6 recommends the adoption of Resolution E.

HOUSE OF DELEGATES

Resolution BB

Campbell-Kenton County Medical Society Members of the KMA Board of Trustees

WHEREAS, the Kentucky Medical Association By-laws regarding the composition of the Board of Trustees allow for 30 different members of the Kentucky Medical Association to participate on the Board of Trustees as voting members; and

WHEREAS, this past year three members occupied 6 positions on the Board of Trustees, thereby limiting representation on the Board to only 27 members; and

WHEREAS, the success of the KMA is predicated upon the interest and efforts of many Association members; and

WHEREAS, the spirit of the Constitution and Bylaws of the KMA in defining the participation on the Board of Trustees was not intended to have a few members occupy many positions of influence; now therefore be it

RESOLVED, that the House of Delegates and Board of Trustees encourage Association members to hold only one office, and that election of its officers should be based on this principle.

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed Resolution BB, introduced by the Campbell-Kenton County Medical Society, pertaining to the dual role of some of the members of the Board of Trustees. Testimony was heard from members of the Board of Trustees and several interested Delegates. This Resolution encourages rather than mandates action. Therefore, Reference Committee No. 6 recommends Resolution BB be adopted.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 6 as a whole.

I would like to thank the members of the Reference Committee, Robert L. Houston, M.D.; Jerry W. Martin, M.D.; G. Randolph Schrodt, M.D.; and Donald J. Swikert, M.D. for their thoughtful consideration and careful deliberation of the matters discussed, and a special thanks to our secretary, Eileen Dougherty.

REFERENCE COMMITTEE NO. 6

Charles H. Nicholson, M.D., Chairman
Lexington

Robert L. Houston, M.D.
Eminence

Jerry W. Martin, M.D.
Bowling Green
G. Randolph Schrodt
M.D., Louisville
Donald J. Swikert, M.D.
Florence

Election of Officers

Jerry W. Martin, M.D., Bowling Green, Chairman of the Nominating Committee, presented the slate of nominees for general officers, and each was elected by acclamation:

President-Elect	Wally O. Montgomery, M.D., Paducah
Vice President	Richard F. Hench, M.D., Lexington
Secretary-Treasurer	S. Randolph Scheen, M.D., Louisville

The slate of nominees and results of the AMA Delegate and Alternate Delegate elections were announced as follows:

2 Delegates for a two-year term (January 1, 1985 to December 31, 1986)	*Harold D. Haller, Sr., M.D., Louisville Lee C. Hess, M.D., Florence *Russell L. Travis, M.D., Lexington
--	---

2 Alternate Delegates for a two-year term (January 1, 1985 to December 31, 1986)	*Carl Cooper, Jr., M.D., Bedford *Kenneth P. Crawford, M.D., Louisville Lee C. Hess, M.D., Florence Albert H. Joslin, M.D., Owensboro
--	--

*Designates those elected by the House to the position indicated.

Doctor Martin then submitted the following nominations for the offices of Trustees and Alternate Trustees on behalf of the District nominating committees:

Fifth District	Bob M. DeWeese, M.D., Louisville
Alternate	E. Dean Canan, M.D., Louisville

HOUSE OF DELEGATES

Sixth District	Nelson B. Rue, M.D., Bowling Green
Alternate	J. Michael Pulliam, M.D., Franklin
Eighth District	William B. Monning, M.D., Erlanger
Alternate	Donald J. Swikert, M.D., Florence
11th District	Donald E. Cloys, M.D., Richmond
Alternate	William H. Mitchell, M.D., Richmond
15th District	Emanuel H. Rader, M.D., Pineville
Alternate	Rufino F. Crisostomo, M.D., Barbourville

A motion was made, seconded, and carried that the above slate of nominees be elected.

Election of 1984 Nominating Committee

The following physicians were elected by the House of Delegates to serve as the Nominating Committee for the 1985 Annual Meeting:

G. Randolph Schrodtt, M.D., Chairman
Louisville
James H. Brewer, M.D.
Shepherdsville
Salem W. George, M.D.
Lebanon
Angela Jarvis, M.D., Owensboro
Carmel Wallace, Jr., M.D., Corbin

It was announced that the Board of Trustees would hold a reorganizational meeting on Thursday at noon in the Regency Ballroom West.

Doctor Campbell adjourned the 1984 session of the House of Delegates at 9:10 p.m.

1984 CONSTITUTION AND BYLAWS OF THE KENTUCKY MEDICAL ASSOCIATION

CONSTITUTION

Article I.	Name of the Association
Article II.	Purpose of the Association
Article III.	Component Societies
Article IV.	Composition and Meetings of the Association
Article V.	Officers
Article VI.	House of Delegates
Article VII.	Districts, Sections and District Societies
Article VIII.	Board of Trustees
Article IX.	Funds and Expenses
Article X.	Referendum
Article XI.	The Seal
Article XII.	Amendments
Article XIII.	Definitions

Article I. Name of Association

The name and title of this organization shall be the Kentucky Medical Association.

Article II. Purpose of the Association

The purpose of the Association shall be to federate and bring into compact organization the entire medical profession of the State of Kentucky and to unite with similar associations in other states to form the American Medical Association, with a view to the extension of medical knowledge; the advancement of medical science and charity; the evaluation of the standards of medical education; the enactment and enforcement of just medical laws; the promotion of friendly intercourse among physicians and the guarding and fostering of their material interests; the protection of the members thereof against unjust assaults upon their professional care, skill or integrity; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

Article III. Component Societies

Component societies shall consist of those medical societies which hold charters from this Association.

Article IV. Composition and Meetings of the Association

The Association shall consist of the members of the component societies, but the House of Delegates shall have authority to adopt such bylaws regulating the admission and classification of members as it may deem advisable. The Association shall hold an Annual Meeting and such Special Meetings as may be called pursuant to the bylaws.

Article V. Officers

Section 1. The officers of this Association shall be a President, a President-Elect, a Vice-President, a Secretary-Treasurer, a Speaker and Vice-Speaker of the House of Delegates, a Trustee and an Alternate Trustee from each district that may be established; and such other officers as may be provided for in the Bylaws.

Section 2. The eligibility, duties and terms of office of all officers of the Association shall be as prescribed in the Bylaws.

Section 3. All officers shall serve until their successors have been elected and installed.

Section 4. All officers shall be elected by the House of Delegates at its Regular Session and shall take office on the last day of the Annual Meeting.

Article VI. House of Delegates

Section 1. The House of Delegates shall be the legislative body of the Association and shall have power, by a two-thirds vote of all the delegates present at that session, to adopt bylaws to carry out

the provisions of this Constitution and to provide for the government of the Association in any other manner not inconsistent with this Constitution. It shall meet in Regular Session, annually during the Annual Meeting of the Association, and may be called into Special Session under such conditions as may be prescribed in the bylaws.

Section 2. Delegates shall be members of and elected by component county societies in such a manner as may be provided in the Bylaws. Officers of the Association, Delegates and Alternate Delegates of the American Medical Association and five immediate Past Presidents shall be the ex-officio members of the House of Delegates and entitled to vote. All other Past Presidents and Vice-Presidents and Past Chairmen of the Board of Trustees shall be ex-officio members of the House. They shall have the right to speak and debate on the floor of the House but shall not have the right to make a motion, introduce business or an amendment, or vote.

Section 3. The House of Delegates shall elect a Speaker and a Vice-Speaker, one of whom shall preside during the meetings of the House of Delegates. The presiding officer shall not be entitled to a vote except in the event of a tie.

Section 4. The House of Delegates shall be the final judge as to the qualification of its members.

Article VII. Districts, Sections and District Societies

The House of Delegates shall divide the state into Districts composed of one or more counties, for administrative purposes. It may also provide for a division of the scientific work of the Association into appropriate Sections, and for the organization of such District Societies, composed exclusively of members of component societies, as will promote the best interests of the profession.

Article VIII. Board of Trustees

The House of Delegates shall make provision in the bylaws for a Board of Trustees composed of one Trustee from each District and such of the other officers of the Association as the House may deem appropriate, which shall be charged with the general direction of the Association's affairs during the interim between meetings of the House. The House may delegate such powers to the Board of Trustees as are not specifically required by this Constitution to be exercised by the House, and may limit the Board's powers to such extent as it may determine to be necessary or desirable, provided, however, that in no event shall the Board of Trustees have power to commit the Association to any course of action which is contrary to or at variance with any policy established by the House of Delegates.

Article IX. Funds and Expenses

The House of Delegates shall provide funds for meeting the expenses of the Association by such methods and from such sources as it may select. Funds may be appropriated by the House of Delegates to defray the expenses of the annual session, for publications, and for such other purposes as will promote the welfare of the Association and the profession.

Article X. Referendum

The membership of the Association, by written petition signed by not less than 10% of the active membership, may obtain a referendum on any question pending before the House of Delegates. The Secretary-Treasurer, upon the presentation of such a petition to him shall cause the question to be submitted to the active membership by mail, and if a majority of the active members shall signify its approval or disapproval of a certain policy or course of action with respect to the question thus submitted, the will of the majority shall determine the question and shall be binding upon the House of Delegates and the Association upon certification of the result of the vote by the Secretary-Treasurer to the President and Board of Trustees.

Article XI. The Seal

The Association shall have a common Seal with power to break, change or renew the same at pleasure.

Article XII. Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at the Regular Session, provided that such amendment shall have been presented in open meeting at the previous regular session, and that it shall have been sent officially to each component county society at least two months before the session at which final action is to be taken.

Article XIII. Definitions

Whenever used in this Constitution, the Articles of Incorporation or the Bylaws—

(a) "County society," "component county society," or "component medical society" means "component society."

(b) "Annual Meeting" means the annual three-day meeting of the Association.

(c) "Scientific Sessions" mean those sessions during the Annual Meeting at which scientific subjects are programmed and discussed.

(d) "Regular Session" means the regular session of the House of Delegates which is held during the Annual Meeting.

(e) "Special Session" means a special, called meeting or session of the House of Delegates.

BYLAWS

Chapter I.	Membership
Chapter II.	Annual and Special Meetings of the Association
Chapter III.	The House of Delegates
Chapter IV.	Election of Officers
Chapter V.	Duties of Officers
Chapter VI.	Board of Trustees
Chapter VII.	Discipline-The Judicial Council
Chapter VIII.	Standing Committees and Councils
Chapter IX.	Assessments and Expenditures
Chapter X.	Rules of Conduct
Chapter XI.	Rules of Order
Chapter XII.	County Societies
Chapter XIII.	Amendments

CHAPTER I. MEMBERSHIP

Section 1. Membership in this Association shall be coterminous with membership in a component county society. No physician shall be eligible for membership in this Association unless he is a member, in good standing of a component society, nor may he maintain membership in a component county society unless he is a member, in good standing of this Association.

When a physician who meets the qualifications hereinafter set forth, is certified to the Secretary-Treasurer as a member in good standing of a component society, properly classified as to type of membership, and when the dues pertaining to his membership classification have been received by the Secretary-Treasurer of the Association, the name of the member shall be included in the official roster of the Association and he shall be entitled to all the privileges of his class of membership. Provided, however, that members in good standing from other state societies may, if admitted to membership by a component society, be accepted by KMA for membership without paying dues for the remainder of the calendar year in which the transfer is made. Provided further, that the Board of Trustees shall have power, upon written application, approved annually by the county society of which the applicant is a member, to excuse any member from the payment of dues because of financial hardship. And provided further, that the Judicial Council, after a hearing, shall have power to condition membership in this Association upon the physician's agreement to limit the scope of his practice in any manner reasonably calculated to protect the public from the adverse effects of any demonstrated frailty or disability of said member.

Section 2. Membership in the Association shall be divided into nine classes, to-wit: Active, Life, In-Training, Associate, Inactive, Student, Service, Honorary and Special.

(a) Active Members. The active membership of the Association shall consist of the active members of the various component medical societies. To be eligible for active membership in any component society, the applicant must be a physician who holds an unrestricted or limited license to practice medicine and surgery in this state, and who is of good moral, ethical and professional

standing. Nothing contained herein shall prevent a component society from requiring new members to occupy provisional status for a reasonable time after their admittance to membership under any classification.

(b) Life Members. Component societies may elect as a life-member any doctor of medicine or osteopathy who has served his profession with distinction and who has either reached the age of 70 or has retired from active practice. Life members shall have the right to vote and be entitled to the benefits of Chapter VI, Section 8 of these Bylaws, but shall not pay dues. They shall receive *The Journal* and other publications of the Association.

(c) Resident Business Section: Doctors of medicine or osteopathy who have complied with all pertinent regulations of the Kentucky State Board of Medical Licensure and who are serving in AMA approved training programs in Kentucky shall be eligible for membership in the Resident Business Section of the Kentucky Medical Association. The Resident Business Section shall be governed by its own Constitution and Bylaws, which shall not be in conflict with the Constitution, Bylaws and Board policies of the parent Kentucky Medical Association. Should any questions arise regarding the existence of a conflict, the KMA Board of Trustees shall be the final arbiter of such questions. In-Training members shall have the right to vote and receive all publications of the Association, but shall not be counted in determining the number of delegates to which their county society is entitled in the House of Delegates. The Resident Business Section will be represented in the KMA House of Delegates by one voting representative elected by the Governing Council of the Resident Business Section.

(d) Associate Members. The associate membership of the Association shall consist of the associate members of the various component medical societies. To be eligible for associate membership in any component society, the applicant must qualify under one or more of the following groups:

(1) Medical officers of the United States Army, Navy, Air Force, Veterans Administration, Public Health Service, or other federal governmental service while on duty in the State, but shall not be deemed to include physicians employed on a full-time basis by the Veterans Administration.

(2) Dentists may be invited to become Associate members.

(3) Physicians residing and/or practicing in communities bordering Kentucky who are active members of their home state and county society and who wish to become members of KMA on an other than active basis may become Associate Members.

Associate members shall not have the right to vote nor to hold office, but shall receive *The Journal* and other publications of the Association.

(e) Inactive Members. The inactive membership of the Association shall consist of the inactive members of the various component county societies. Any doctor of medicine licensed to practice medicine in Kentucky who is not engaged in the practice of medicine but who is otherwise eligible for active membership in the Association may be admitted to inactive membership by any component county society. Inactive members shall not have the right to vote nor hold office, but shall receive *The Journal* and other publications of the Association.

(f) Student Members. Any student in an accredited medical school in Kentucky or any resident of Kentucky who is a student in an accredited medical school in the United States shall be eligible for membership in the Medical Student Section of the Kentucky Medical Association. This Medical Student Section shall be governed by its own Constitution and Bylaws, which Constitution and Bylaws shall not be in conflict with those of the parent Kentucky Medical Association. In order to insure the absence of any such conflict, the initial Constitution and Bylaws of the Student Section, as well as any later amendments thereto, shall be given prior approval by a majority of all Delegates present at the Annual Meeting of the KMA House of Delegates. Individual students may apply directly to the State Association for membership and be assigned to the county society of their choice. The determination

of such membership shall be coincident with the academic year of the institution in which the student is enrolled. Student members may not hold office in the State Association, but may be voting members of any State Association committee to which they are appointed. Student members may, however, hold office within the Student Section in accord with the provisions of that Section's Constitution and Bylaws. The Student Section will be represented in the House of Delegates through one voting representative, a student member of the Kentucky Medical Association elected by the Student Section membership attending the University of Kentucky College of Medicine and one voting representative, a student member of the Kentucky Medical Association elected by the Student Section membership attending the University of Louisville School of Medicine.

(g) Service Members. Members of the Association in good standing who enter military service and are ineligible for Association membership shall be classified as service members. Service Members shall not be required to pay dues. If a member in good standing enters service prior to April 1 and has paid his dues for that year, he shall receive all publications and other benefits applicable to his class of membership in the Association and shall owe no further dues until January 1 following his release. If a member in good standing enters service prior to April 1 without paying his dues for that year, he shall receive publications and other benefits but shall owe the dues applicable to his class of membership immediately following his release from active duty. Members whose dues have not been received by April 1 are not in good standing.

(h) Honorary Members. Any physician possessed of scientific attainments who is a member of a constituent state medical association and who has participated in the program of the scientific session and who is not a citizen of Kentucky may by unanimous vote of the House of Delegates be elected to honorary membership. Honorary members shall be entitled to the privileges of the floor in all scientific sessions.

(i) Special Members. Component societies may invite pharmacists, funeral directors, or other professional persons to become special members. Special members shall have no rights or obligations under these Bylaws, but may be accorded the privilege of attending and participating in the scientific meetings of the society, provided, however, that a registration fee may be required of special members who desire to attend the Annual Meeting of the Association.

Section 3. Hospital Medical Staff Section. There shall be a special section for hospital medical staff physicians who already hold membership in KMA. The Hospital Medical Staff Section (HMSS) shall be governed by its own Constitution and Bylaws, which Constitution and Bylaws shall not be in conflict with the Constitution, Bylaws and Board policies of the parent Kentucky Medical Association. Should any questions arise regarding the existence of a conflict, the KMA Board of Trustees shall be the final arbiter of such questions. The Hospital Medical Staff Section shall elect a Delegate and Alternate Delegate to the KMA House of Delegates. The Delegate to the KMA House of Delegates, or his Alternate as the case may be, shall be a voting member of the House and may present resolutions on behalf of the HMSS.

Section 4. Guests of Honor. Any distinguished physician not a resident of this State may become a guest of honor during any Annual Meeting upon invitation of the Board of Trustees and shall be accorded the privilege of participating in all of the scientific work of that meeting.

Section 5. No person who is finally convicted of a felony subsequent to September 26, 1968, shall be eligible for membership in this Association unless and until, upon proper application to the Judicial Council, it is determined that he is morally and ethically qualified. Except as provided in Chapter VII, Section 4 of these Bylaws, no person who is under sentence of suspension or expulsion from any component society of this Association shall be entitled to any of the rights or benefits of membership of this Association.

CHAPTER II. ANNUAL AND SPECIAL MEETINGS OF THE ASSOCIATION

Section 1. The Association shall hold its annual and special meetings at such times and places as may be determined by the House of Delegates.

Section 2. The Annual Meeting shall consist of one or more

scientific sessions, at least two meetings of the House of Delegates, and such other gatherings as may be authorized by the Board of Trustees. Each scientific session shall be presided over by the President or in his absence or disability or at his request by the President-Elect or such officers as the Board of Trustees may direct. The entire time of the scientific sessions, as far as may be, shall be devoted to papers and discussions related to scientific medicine.

Section 3. The name of a physician upon the properly certified roster of members or list of delegates of a component society which has paid its annual assessment, shall be prima facie evidence of his right to register at any meeting of this Association.

Section 4. Each member in attendance at any meeting shall register indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of the society, he shall receive a badge which shall be evidence of his right to all privileges of membership at that meeting. No member or delegate shall take part in any of the proceedings of any meeting until he has complied with the provisions of this section.

CHAPTER III. THE HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet in Regular Session at the time and place of the Annual Meeting, and shall, insofar as is practicable, fix its hours of meeting so as to give delegates an opportunity to attend the scientific sessions and other proceedings. Provided, however, that if the business interests of the Association and profession require, the Speaker, with the consent of the Board of Trustees, may convene the Regular Session in advance of the Annual Meeting, and the House may remain in session after the final adjournment thereof.

Section 2. The House may be called into Special Session by the President with the approval of the Board of Trustees, and a special session shall be called by the President on the written request of fifty duly elected delegates of the Association. The purpose of all special sessions shall be stated in the call, and all business transacted at any such special session shall be germane to the stated purpose.

Section 3. When a special session is called, the Secretary-Treasurer shall mail a notice of the time, place, and purpose of such meeting to the last known address of each delegate at least ten days before such session.

Section 4. The Speaker shall, by virtue of his office, be responsible for making all arrangements for all sessions, regular or special, of the House.

Section 5. The members of the House of Delegates shall be elected by the various component societies in the manner prescribed in Chapter XII of these Bylaws.

Section 6. In the event a component society is not represented at any meeting of the House, the Speaker shall consult with any officer of the component society who is in attendance and, with the approval of the Credentials Committee, may appoint any active member of such component society who is in attendance, as its alternate delegate. If no officer of such society is present, the Speaker may make the appointment without consultation, but with the approval of the Credentials Committee. All such appointments shall also be subject to the approval of the House.

Section 7. Forty per cent of the qualified delegates, as defined by Article VI of the constitution, shall constitute a quorum and all of the meetings of the House shall be open to the members of the Association. The House shall have the right to go into executive session whenever in its judgment such action is indicated; except that active members of the Association shall have the right to attend all executive sessions.

Section 8. Each resolution introduced into the House shall be in writing and signed by the author and presented to the Secretary-Treasurer following its introduction. If the author presenting the resolution presents it as an individual member of the Kentucky Medical Association, the resolution shall be signed by him. If the author be a group of members or component society, the resolution shall be signed by the authorized spokesman for that group. Immediately after the resolution has been introduced, it shall be referred to the proper Reference Committee before action thereon is taken.

Section 9. No resolution shall be introduced in the first meeting of the House of Delegates by any member or group of members other than the Board of Trustees unless a copy thereof was furnished to the Headquarters Office at least seven days prior to its introduction. The only exception to this shall be that a resolution which has been signed by ten or more members of the House of Delegates and of which there are sufficient printed copies to distribute to each member

of the House of Delegates may be received for consideration by an affirmative vote of three-fourths of the members present and voting. No new business shall be introduced in the last meeting of the House without unanimous consent, except when presented by the Board of Trustees. All new business so presented shall require the affirmative vote of three-fourths of those delegates present and voting, for adoption.

Section 10. The House shall give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each Annual Meeting a stepping stone to further ones of higher interest.

Section 11. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein the public is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse information in relation thereto.

Section 12. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality and shall continue these efforts until every physician in every county of the State who will agree to abide by the constitution, bylaws and other rules and regulations of the Association and the appropriate component society, has been brought under medical society influence.

Section 13. It shall encourage postgraduate work in medical centers as well as home study and research and shall endeavor to have the results of the same utilized and intelligently discussed in the county societies.

Section 14. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body.

Section 15. It shall, upon application, provide and issue charters to county societies organized in conformity with the Constitution and Bylaws of this Association.

Section 16. The state shall be divided into the following districts:
No. 1—Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingston, McCracken, and Marshall.

No. 2—Daviness, Hancock, Henderson, McLean, Ohio, Union, and Webster.

No. 3—Caldwell, Christian, Crittenden, Hopkins, Lyon, Muhlenberg, Todd, and Trigg.

No. 4—Breckinridge, Bullitt, Grayson, Green, Hardin, Hart, Larue, Marion, Meade, Nelson, Taylor, and Washington.

No. 5—Jefferson.

No. 6—Adair, Allen, Barren, Butler, Cumberland, Edmonson, Logan, Metcalf, Monroe, Simpson, and Warren.

No. 7—Anderson, Carroll, Franklin, Gallatin, Grant, Henry, Oldham, Owen, Shelby, Spencer, and Trimble.

No. 8—Boone, Campbell, and Kenton.

No. 9—Bath, Bourbon, Bracken, Fleming, Harrison, Mason, Nicholas, Pendleton, Scott, and Robertson.

No. 10—Fayette, Jessamine, and Woodford.

No. 11—Clark, Estill, Jackson, Lee, Madison, Menifee, Montgomery, Owsley, Powell, and Wolfe.

No. 12—Boyle, Casey, Clinton, Garrard, Lincoln, McCreary, Mercer, Pulaski, Rockcastle, Russell, and Wayne.

No. 13—Boyd, Carter, Elliott, Greenup, Lawrence, Lewis, Morgan, and Rowan.

No. 14—Breathitt, Floyd, Johnson, Knott, Letcher, Magoffin, Martin, Perry, and Pike.

No. 15—Bell, Clay, Harlan, Knox, Laurel, Leslie, and Whitley.

District meetings may be held as desired, and District Medical Associations may be organized as desired, according to the districts outlined above.

Section 17. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

Section 18. It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective, except as provided in Chapter VI, Section 4, and except for the selection of the recipient of the Kentucky Medical Association Award (Outstanding Layman) and Distinguished Service Award (Outstanding Physician), which selections shall be made by the KMA Awards Committee.

Section 19. A digest of proceedings of the House of Delegates shall be published and distributed to the membership annually.

CHAPTER IV. ELECTION OF OFFICERS AND DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Section 1. The President-Elect and the Vice President shall be elected from the state at large for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. A majority vote of those attending and voting shall be required for the election of the President-Elect and the Vice President and on any ballot where a majority is not obtained, the candidate with the least votes shall be dropped and further balloting held until such time as one candidate receives a majority of the votes cast. Delegates to the AMA and their alternates shall be elected from the state at large for terms of two years with the provision that no more than one delegate and no more than one alternate delegate shall be elected from one component society. The Speaker of the House of Delegates, the Vice-Speaker and the Secretary-Treasurer shall be elected for terms of three years. Trustees and their Alternates shall be elected for terms of three years and Trustees shall be limited to serving for not more than two consecutive full terms. The terms of the Trustees and their Alternates shall coincide and be so arranged that one-third of the terms expire each year, insofar as possible, provided, however, that nothing contained herein shall preclude an Alternate Trustee from serving two full terms as a Trustee. No member shall be eligible for the office of President, President-Elect, Vice-President, Secretary-Treasurer, Speaker or Vice-Speaker of the House of Delegates, Trustee or Alternate Trustee who has not been an active member of the Association for at least three years.

Section 2. During the last meeting of the regular session of the House of Delegates, the Speaker of the House of Delegates shall submit to the members of the House of Delegates a list of ten names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. The five names receiving the most votes shall form the Committee, and the person receiving the most votes shall be Chairman. In the event that the Chairman so elected is unable or unwilling to serve, or in the event of a tie, the Committee shall elect one of its members as Chairman. The Committee shall meet at such time and place as determined by the Committee Chairman or the Board of Trustees, and shall schedule an open meeting immediately after the close of the first meeting of the House at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the committee shall have a hearing. The Nominating Committee shall verify the eligibility and willingness to serve of each candidate nominated. The Committee shall accept and post for information all eligible and willing candidates proposed for offices elected from the state at large. Before noon of the day following the opening meeting, the committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nomination, or nominations, for each office to be filled, and shall formally present said nomination, or nominations, to the House at the time of the election. Additional nominations may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation, or disability, shall be filled by appointment of the Speaker.

Section 3. The election of officers and delegates to the AMA and their alternates shall be held at the second meeting of the regular session of the House of Delegates.

Section 4. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect, provided, however, that when there are more than two nominees, the nominee receiving the least number of votes on the first ballot shall be dropped and the balloting shall continue in like manner until an election occurs.

Section 5. Any member may make known his availability for any office within the gift of the Association. However, it would be regarded as unseemly for any member to actively campaign for his own election.

Section 6. The Delegates representing the counties in each District form the Nominating Committee for the purpose of nominating a Trustee and an Alternate Trustee for the District concerned. This committee shall hold a well publicized meeting open to all active members of the District concerned who are in attendance at the Annual Meeting for the purpose of discussing the nomination of the

Trustee and his Alternate to serve the District. Additional nominations may be made from the floor when the Nominating Committee makes its report to the House of Delegates.

CHAPTER V. DUTIES OF OFFICERS OTHER THAN TRUSTEES AND ALTERNATES

Section 1. Except as provided in Chapter II, Section 2 hereof, the President shall preside at all scientific sessions of the Association and shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such duties as custom and parliamentary usage may require. He shall be the real head of the profession in the State during his term of office and so far as practicable, shall visit or cause to be visited on his behalf, the various sections of the State and assist the Trustees in building up the county societies and in making their work more practical and useful. He shall be reimbursed for his reasonable and necessary travel expense incurred in the performance of his duties as President.

Section 2. The President-Elect shall assist the President in visitation of county and other meetings. He shall become president of the Association at the next Annual Meeting following his election as president-elect. In the event of his death or resignation, or if he becomes permanently disqualified or disabled, his successor shall be elected by the House of delegates and shall be installed as President of the Association at its next regular session.

Section 3. The Vice President shall assist the President in the discharge of his duties, and shall perform such other duties as may be prescribed by the Board of Trustees. In the event of a vacancy in the office of the President, the Vice-President shall succeed to the office of the President.

Section 4. The President-Elect and the Vice-President, when acting for and in behalf of the President, may be reimbursed for their reasonable and necessary travel expenses incurred in the performance of their duties in such amounts as may be available out of the sum appropriated in the annual budget for traveling expenses.

Section 5. The Speaker of the House shall preside at all meetings of the House of Delegates. He shall appoint all committees of the House of Delegates with the approval of the House of Delegates. He shall be a non-voting member of said committees, and shall perform such other duties as custom and parliamentary usage may require.

Section 6. The Vice Speaker shall assume the duties of the Speaker in his absence and shall assist the Speaker in the performance of his duties. In the event of the death, disability, resignation, or removal of the Speaker, the Vice Speaker shall automatically become Speaker of the House of Delegates.

Section 7. The Secretary-Treasurer shall advise the Executive Vice President in all administrative matters of this Association and shall act as the corporate secretary insofar as the execution of official documents or institution of official actions are required. He shall perform such duties as are placed upon him by the Constitution and Bylaws, and as may be prescribed by the Board of Trustees. The Secretary-Treasurer shall demand and receive all funds due the Association, including bequests and donations. He shall, if so directed by the House of Delegates, sell or lease any real estate belonging to the Association and execute the necessary papers and shall, subject to such direction, have the care and management of the fiscal affairs of the Association. All vouchers of the Association shall be signed by the Executive Vice President or his designee and shall be countersigned by the Secretary-Treasurer of the Association. When one or more of the above-named officials are not readily available, four specifically designated representatives of the Executive Committee are authorized to countersign the vouchers, provided that in any event all vouchers of the Association shall bear a signature and a countersignature. The four members of the Executive Committee authorized to countersign vouchers shall be designated by the Board during their reorganizational meeting in September and, whenever possible should be easily accessible from the KMA Headquarters Office. All those authorized to countersign vouchers shall be required to give bond in an amount to be determined by the Board of Trustees. The Secretary-Treasurer shall report the operations of his office annually to the House of Delegates, via the Board of Trustees, and shall truly and accurately account for all funds belonging to the Association and coming into his hands during the year. His accounts shall be audited annually by a certified public accountant appointed by the Board of Trustees.

CHAPTER VI. BOARD OF TRUSTEES

Section 1. The Board of Trustees shall be the executive body of

the House of Delegates and between sessions of the House of Delegates shall exercise the powers conferred upon the House of Delegates by the Constitution and Bylaws. The Board of Trustees shall consist of the duly elected Trustees and the President, the President-Elect, the Vice-President, the immediate Past-President, the Speaker, and Vice-Speaker of the House of Delegates, the Secretary-Treasurer, and the Delegates and Alternate Delegates to the American Medical Association. The Executive Committee of the Board of Trustees shall consist of the President, the Vice-President, the President-Elect, the Secretary-Treasurer, the Chairman of the Board of Trustees, the Vice Chairman of the Board of Trustees, and two Trustees to be elected annually by the Board of Trustees. A majority of the full Board, and a majority of the full Executive Committee, to-wit, 5, shall constitute a quorum for the transaction of all business by either body. Between sessions of the Board, the Executive Committee shall exercise all of the powers belonging to the Board except those powers specifically reserved by the Board to itself.

Section 2. The Board shall meet daily, or as required, during the Annual Meeting of the Association and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Trustees. It shall meet on the last day of the Annual Meeting for reorganization and for the outlining of the work for the ensuing year. It shall, through its Chairman, make an annual report to the House of Delegates at such time as may be provided, which report shall include an audit of the accounts of the Secretary-Treasurer and other agents of this Association and which shall also specify the character and cost of all the publications of the Association during the year, and the amounts of all other property belonging to the Association, or under its control, with such suggestions as it may deem necessary. By accepting or rejecting this report, the House may approve or disapprove the action of the Board of Trustees in whole or in part, with respect to any matter reported upon therein. In the event of a vacancy in any office other than that of President, the Board may fill the same until the annual election.

Section 3. Each Trustee shall be organizer, peacemaker and censor for his district. He shall hold at least one district meeting each year for the exchange of views on problems relating to organized medicine and for postgraduate scientific study. The necessary traveling expenses incurred by a Trustee in the line of his duties herein imposed may be paid by the Secretary-Treasurer upon a proper itemized statement but this shall not be constituted to include his expenses in attending the Annual Meeting of the Association.

Section 4. The Board shall have the authority to communicate the views of the profession and of the Association in regard to health, sanitation, and other important matters, to the public and press.

Section 5. The *Journal of the Kentucky Medical Association* shall be the official organ of the Association and shall be published under the supervision of the Board. The Editor of the *Journal* shall be elected by the Board. All money received by the *Journal* or by any member of its staff on its behalf, shall be paid to the Secretary-Treasurer on the first of each month. The Board shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs of the Association, and shall have authority to appoint such assistants to the Editor as it deems necessary.

Section 6. All commercial exhibits during the Annual Meeting shall be within the control and direction of the Board.

Section 7. In the event of the death, resignation, removal or disability of a Trustee, between sessions of the House of Delegates, the Alternate Trustee shall succeed to the office of Trustee. In the case of disability, the Alternate shall serve until the disability is removed or the Trustee's term expires, and in the absence of the Trustee, the Alternate Trustee shall vote in his place and stead.

Section 8. The Association, upon the request of any member in good standing who is a defendant in a professional liability suit, will provide such member with the consultative service of competent legal counsel selected by the Secretary-Treasurer acting under the general direction of the Executive Committee. In addition, the Association may, upon application to the Board outlining unusual circumstances justifying such action, provide such member with the services of an attorney selected by the Board to defend such suit through one court.

Section 9. The Board shall employ an Executive Vice President whose principal duty shall be to carry out and execute the policies established by the House of Delegates and the Board. His compensation shall be fixed by the Board. The Executive Vice President shall act as general administrative officer and business manager of the Association and shall perform all administrative duties necessary and proper to the general management of the Headquarters Office, except those duties which are specifically imposed by the Constitution and Bylaws upon the officers, committees, councils and other rep-

representatives of the Association. He shall refer to the various elected officials all administrative questions which are properly within their jurisdiction.

He shall attend the Annual Meeting, the meetings of the House of Delegates, the meetings of the Board, as many of the committee and council meetings as possible, and shall keep separately the records of their respective proceedings. He shall, at all times, hold himself in readiness to advise and aid, so far as is possible and practicable, all officers, committees, and councils of the Association in the performance of their duties and in the furtherance of the purposes of the Association. He shall be allowed traveling expenses to the extent approved by the Board.

He shall be the custodian of the general papers and records of the Association (including those of the Secretary-Treasurer) and shall conduct the official correspondence of the Association. He shall notify all members of meetings, officers of their election, and committees and councils of their appointment and duties.

He shall account for and promptly turn over to the Secretary-Treasurer all funds of the Association which come into his hands. It shall be his duty to receive all bills against the Association, to investigate their fairness and correctness, to prepare vouchers covering the same, and to forward them to the Secretary-Treasurer for appropriate action. He shall keep an account with the component societies of the amounts of their assessments, collect the same, and promptly turn over the proceeds to the Secretary-Treasurer. He shall, within thirty days preceding each Annual Meeting, submit his financial books and records to a certified public accountant, approved by the Board, whose report shall be submitted to the House of Delegates.

He shall keep a record of all physicians in the State by counties, noting on each his status in relation to his county society, and upon request shall transmit a copy of this list to the American Medical Association.

He shall act as Managing Editor, or otherwise supervise the publication of *The Journal of the Kentucky Medical Association* and such other publications as may be authorized by the House of Delegates, under the guidance and direction of the Board.

He shall perform such additional duties as may be required by the House of Delegates, the Board, or the President, and shall employ such assistants as the Board may direct. He shall serve at the pleasure of the Board, and in the event of his death, resignation, or removal, the Board shall have the power to fill the vacancy. From time to time, or as directed by the Board, he shall make written reports to the Board and House of Delegates concerning his activities and those of the Headquarters Office.

CHAPTER VII. DISCIPLINE—THE JUDICIAL COUNCIL

Section 1. There is hereby created a Judicial Council composed of the Secretary-Treasurer of the Association and four members to be elected by the House of Delegates for terms of four years each. One member shall be elected from each of the traditional eastern, western, and central districts, and one member from the state at large. Members of the first Judicial Council shall be elected for terms of one, two, three, and four years, respectively so that thereafter, one member will be elected each year. The Council shall annually elect a chairman.

To be eligible for membership on the Judicial Council, a nominee shall possess at least one of the following qualifications: (1) Have served one term as an officer, trustee, or a Delegate to the AMA or (2) Have served five years as a member of the House of Delegates.

It shall be the duty of the Board of Trustees to nominate at least one candidate for each vacancy on the Judicial Council, but additional nominations may be made from the floor. Vacancies which occur between Regular Sessions of the House of Delegates, shall be filled by the Board of Trustees. No member, other than the Secretary-Treasurer shall serve more than two consecutive terms.

Section 2. The Judicial Council shall be the Board of Censors of the Association. It shall be the final arbiter of all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All charges of breach of medical ethics brought before the House of Delegates shall be referred to the Judicial Council without discussion. A member who has been convicted of a felony or of any violation of the Medical Practice Act, or who violates any of the provisions of the constitution, bylaws, or any rule or regulation of this Association, or the Principles of Ethics of the American Medical Association shall be liable to censure, fine, suspension, or expulsion upon order of the Judicial Council. Provided, however, that if in addition to discipline by the Association, the Judicial Council shall be of the

opinion that the offending member's license to practice medicine should be revoked, it shall report this to the Board of Trustees as a recommendation that the Board refer the matter to the State Board of Medical Licensure for this purpose.

Suspension shall be for a specified period during which the member shall remain liable for the payment of dues but shall not be eligible to hold office, attend business meetings or otherwise participate in Associational activities at the county, district or state levels. Upon the expiration of the period of suspension, every suspended member shall be automatically restored to all of the rights and privileges of his class of membership unless the Judicial Council determines that his conduct during the period of suspension indicates that he is unworthy of such restoration, in which event his suspension may be extended or he may be expelled.

Upon the complaint of any member or aggrieved individual involved, the Judicial Council may initiate disciplinary proceedings against any member, and may intervene in or supersede county, individual trustee, or district disciplinary proceedings, whenever in its sole judgment and opinion, a disciplinary matter is not being handled in an expeditious manner, and may render a decision therein. In all cases in which the Association, rather than a member or aggrieved individual, appears to be the real party in interest, the Judicial Council may refer the complaint to the Board of Trustees for a determination as to whether probable cause for disciplinary action exists. If the Board of Trustees resolves this question in the affirmative, it shall so charge the respondent, and a representative of the Board shall thereupon be responsible for presenting the evidence in support of such charge at any hearing held thereon.

In all proceedings of the Judicial Council, the due process requirements of reasonable notice and a full and fair hearing shall be observed. No recommended disciplinary decision of an individual trustee or any district grievance committee shall become effective unless and until approved by the Judicial Council.

Section 3. It shall consider all appeals from the recommended decisions of individual trustees and District Grievance Committees. In this case of appeals from the decisions of individual trustees, the Judicial Council may admit such oral or written evidence as in its judgment will best and most fairly present the facts, but all appeals from the recommended decisions of District Grievance Committees shall be considered on the record made before such committee. It shall be the duty of the Secretary to notify the parties with respect to its disposition of each case.

Section 4. The Judicial Council may hear appeals from the disciplinary orders of component societies. Provided, however, that such appeals shall be considered on the record made before the component societies.

Section 5. Efforts toward conciliation and compromise shall precede the hearing of all disciplinary cases, but the decision of the Judicial Council shall be final. A party aggrieved by the decision of the Judicial Council may seek an appeal to the Judicial Council of the American Medical Association in accordance with the jurisdiction, rules and regulations of that Association.

Section 6. Component societies are encouraged to create suitable disciplinary procedures which guarantee due process, and to dispose of all disciplinary problems which come to their attention. It is recognized, however, that it may not be feasible for some societies to do so, and the District Grievance Committees hereinafter created, are designed to meet the needs of county societies which are without a functioning grievance committee.

Section 7. The trustee of each district is hereby designated the chairman of his District Grievance Committee. The Judicial Council shall designate two additional trustees from districts adjoining that of the chairman, and the three trustees thus selected shall constitute the District Grievance Committee. All grievances which cannot be resolved by individual trustees, shall be referred to the local grievance committee or the district grievance committee for the district in which the respondent physician or county society resides.

Section 8. District Grievance Committees shall investigate every grievance coming to their attention, taking care that the physician complained of shall have ample opportunity to respond to the complaint. If, after careful investigation the complaint appears to be without merit, the committee shall so report to the Judicial Council, including sufficient facts in its report to enable Judicial Council to form its own conclusions.

If the District Grievance Committee's investigation indicates that the member may be a proper subject of disciplinary action, the committee shall, upon reasonable notice, hold a hearing at which the complainant and the respondent shall be entitled to be represented by counsel, to present the testimony of witnesses in his behalf, and to cross-examine witnesses against him. All testimony shall be under oath and shall be recorded by a competent reporter at the expense

of the Association, but shall not be transcribed unless and until an appeal is taken as hereinafter provided.

When all of the testimony has been heard and all evidence received, the committee shall make written findings and recommendations which it shall transmit to the Judicial Council, furnishing copies thereof to the parties.

Section 9. Any party aggrieved by the findings or recommendations of the committee, may, within 30 days, appeal to the Judicial Council. Appeals shall be taken by filing with the Secretary-Treasurer a copy of the entire record made before the District Grievance Committee (including a transcript of the testimony, procured at the appellant's expense) together with a written statement of appeal pointing out in detail wherein the committee has erred, and directing the attention of the Judicial Council to those portions of the transcript upon which he relies, provided, however, that the Judicial Council may extend the time in which the transcript must be filed, upon request made within the initial thirty-day period.

Section 10. No report or opinion of the Judicial Council shall be considered the policy of the Association until approved by the House of Delegates. Any report or opinion of the Judicial Council submitted to the House of Delegates may be accepted or rejected or referred back to the Judicial Council but not modified by the House of Delegates.

CHAPTER VIII. COMMITTEES AND COMMISSIONS

Section 1. The Board of Trustees shall have authority from time to time to appoint, fix the duties of, and abolish such standing committees and commissions as it deems necessary or desirable to assist it in carrying on the Association's activities in the fields of business and scientific meetings, medical education and hospitals, legislation, medical services, communications and public service, and governmental medical services.

Section 2. The Executive Committee shall serve as the nominating committee for all standing committee and commission appointments, but the trustees may make additional nominations. When the Executive Committee sits as such nominating committee, the President-Elect shall serve as Chairman.

Section 3. The President, with the advice and consent of the Chairman of the Board of Trustees, may appoint temporary ad hoc committees to perform specified functions. All such committees shall expire at the end of the term of the President by whom appointed.

Section 4. No committee or commission shall have power or authority to fix or determine Associational policy or to commit the Association to any course of action, such powers being expressly reserved to the House of Delegates and the Board of Trustees.

CHAPTER IX. ASSESSMENTS AND EXPENDITURES

Section 1. The annual dues for membership in this Association shall be as follows: (1) Active Members, \$300; (except those physicians elected to KMA membership within six months of the completion of their residency, fellowship or fulfillment of government-obligated service shall pay \$150 their first full year of membership); (2) Life Member, no dues; (3) Associate Members, \$50; (4) In-Training Members, \$20; (5) Inactive Members, \$25; (6) Student Members, no dues; (7) Service Members, no dues; (8) Special Members, no dues. The dues during the first year for any active member shall be pro-rated on the basis of the date of his application. Dues fixed by these Bylaws shall constitute assessments against the component societies. Unless otherwise instructed by the Board of Trustees (which may institute centralized billing) the Secretary of each component society shall forward its assessments, together with its properly classified roster of all officers and members, list of delegates, and list of non-affiliated physicians of the country, to the Secretary-Treasurer of this Association as of the first day of January each year.

Section 2. Unless otherwise provided by the Board of Trustees pursuant to Section 1 hereof, any component society which fails to pay its assessments, or make the report as required, on or before the first day of April in each year, shall be held as suspended and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Section 3. All motions and resolutions appropriating money shall specify a definite amount or so much thereof as may be necessary for the purpose, and must have prior approval of the Board of Trustees before they can become effective. No motion or resolution, the adoption of which would require a substantial expenditure of funds, shall be considered by the House of Delegates unless the funds have been budgeted or are provided by the motion or resolution.

CHAPTER X. RULES OF CONDUCT

The principles set forth in the Principles of Ethics of the American Medical Association, together with the Constitution and Bylaws of the Association and all duly adopted resolutions of the House of Delegates, shall govern the conduct of members in their relation to each other and to the public.

CHAPTER XI. RULES OF ORDER

The deliberations of this Association shall be governed by parliamentary usage as contained in the latest edition of Sturgis' Standard Code of Parliamentary Procedure, unless otherwise determined by a vote of its respective bodies.

CHAPTER XII. COUNTY SOCIETIES

Section 1. Except as provided in Section 3 of this Chapter, all county medical societies in this State which have adopted principles of organization not in conflict with this Constitution and Bylaws shall, upon application to the House of Delegates, receive a charter from and become a component part of this Association.

The House of Delegates shall have authority to evoke the charter of any component society whose actions are in conflict with the letter or spirit of the Constitution and Bylaws.

Section 2. As rapidly as can be done after the adoption of this Constitution and Bylaws, a medical society shall be organized in every county in the state in which no component society exists, and charters shall be issued thereto.

Section 3. Only one component society shall be chartered in any county. Membership in the component society thus created shall entitle the members thereof to all the rights and benefits of membership in the Kentucky Medical Association.

Section 4. In sparsely settled sections two or more component societies may join for scientific programs, the election of officers, and such other matters as they may deem advisable. The component societies thus combined shall not lose any of their privileges or representation. The active members of each component society shall annually elect at least a Secretary and a Delegate for the transaction of its business with the Association.

Two or more adjacent component societies may also combine into one multi-county component society by adopting resolutions to that effect at special meetings called for that purpose on at least ten days' notice. Copies of the resolution, certified as to their adoption by the Secretary of each society, shall be forwarded to the Headquarters Office. If approved by the Board of Trustees, the multi-county society shall thereupon be issued a charter, the consolidating county societies shall cease to exist and the multi-county society shall become a component society of this Association; provided, however, that the active members residing in each county comprising the multi-county society shall be entitled to elect a delegate or delegates to the House of Delegates, as if each such county constituted a component society within the meaning of Section 11 of this Chapter; and provided, further, that multi-county societies may elect, at large, one alternate delegate for each delegate to which it is entitled under this section and such alternate may serve in the absence of the delegate for whom he is the designated alternate.

A multi-county component society may be disaggregated so that an individual county society may regain independent status when a majority of the members in that county indicate their desire to reorganize. At that time the members from the withdrawing county shall forward a petition containing the signatures of a majority of the members in that county to be validated by KMA. The withdrawing county shall further forward a resolution to the KMA Headquarters Office to be submitted to the House of Delegates at its next regular meeting, requesting recognition as a county society and issuance of a charter, in accord with Chapter XII, Section 1 of the KMA Bylaws. Once this charter is issued, the new county society shall become a recognized entity at the beginning of the following KMA dues year and those counties remaining with the original multi-county unit may continue to function under their pre-existing charter.

Section 5. Each component society shall be the sole judge of the qualifications of its own members. All members of component societies shall be members of the Kentucky Medical Association and shall be classified in accordance with Chapter I, Section 2 of these Bylaws, provided, however, that no physician who is under suspension or who has been expelled shall thereafter, without reinstatement by the Board of Trustees be eligible for membership in any component society. Any physician who desires to become a member of the Kentucky Medical Association shall first apply to the component society in the county in which he resides, for membership therein. Except as hereinafter provided in Sections 6 and 7

or 8 of this chapter, no physician shall be an active member of a component society in any county other than the county in which he resides.

Section 6. Any physician who may feel aggrieved by the action of the component society of the county in which he resides, in refusing him membership, shall have the right to appeal to the Board of Trustees, which, upon a majority vote, may permit him to apply for membership in a component society in a county which is adjacent to the county in which he resides.

Section 7. When a member in good standing in a component society moves to another county in the State, his name, upon request, shall be transferred without cost to the roster of the component society into whose jurisdiction he moves, if he is admitted to membership therein.

Section 8. A physician whose residence is closer to the headquarters of an adjacent component society than it is to the headquarters of the component society of the county in which he resides, may, with the consent of the component society within whose jurisdiction he resides, hold membership in said adjacent component society.

Section 9. Each component society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material conditions of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Upon reasonable notice and after a hearing, component societies may discipline their members by censure, fine, suspension or expulsion, for any breach of the Principles of Medical Ethics or any bylaw, rule or regulation lawfully adopted by such societies or this Association. At every hearing, the accused shall be entitled to be represented by counsel and to cross-examine witnesses, and the society shall cause a stenographic record to be made of the entire proceedings. The stenographer's notes need not be transcribed unless and until requested by the respondent member.

Any physician aggrieved by the disciplinary action of a component society may, within ninety (90) days, appeal to the Judicial Council, whose decision shall be final. This appeal shall be in writing and shall point out in detail the errors committed by the county society. It shall be accompanied by a transcript of the proceedings before the county society, procured at appellant's expense, and the statement of appeal shall direct the attention of the Judicial Council to those portions of the transcript upon which he relies.

Any member who fails or refuses to comply with the lawful disciplinary orders of his component society shall, if such failure or refusal continues for more than thirty (30) days, be automatically suspended from membership, provided, however, that an appeal shall stay the suspension until a final decision is made by the Judicial Council.

The resignation of a member against whom disciplinary charges are pending or who is in default of the disciplinary judgment of his county society, a district grievance committee or the Board of Trustees shall not be accepted and no member who is suspended or expelled may be reinstated or readmitted unless and until he complies with all lawful orders of his component society and the Board of Trustees.

Section 10. Frequent meetings shall be encouraged and the most attractive programs arranged that are possible. Members shall be especially encouraged to do postgraduate and original research work,

and to give the society the first benefit of such labors. Official positions and other references shall be unstintingly given to such members.

Section 11. At the time of the annual election of officers, each component society shall elect a delegate or delegates to represent it in the House of Delegates. The term of a delegate shall commence on the first day of the regular session of the House following his election, and shall end on the day before the first day of the next regular session, provided, however, that component societies may elect delegates for more than one term at any election. Each component society may elect one delegate for each 25 voting members in good standing, plus one delegate for one or more voting members in excess of multiples of 25, provided, however that each component society shall be entitled to at least one delegate regardless of the number of voting members it may have and that each multi-county society shall be entitled to the same number of delegates as its component societies would have had. The secretary of the society shall send a list of such delegates to the Secretary-Treasurer of this Association not later than 45 days before the next Annual Meeting. It shall be the obligation of a component society which elects delegates to serve more than one year, to provide the KMA Headquarters Office with a certified list of its delegates each year.

Section 12. The secretary of each component society shall keep a roster of its members and a list of nonaffiliated licensed physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. He shall furnish an official report containing such information upon blanks supplied him for the purpose, to the Secretary-Treasurer of the Association, on the first day of January of each year or as soon thereafter as possible, and at the same time the dues accruing from the annual assessment are sent in. In keeping such roster the secretary shall note any change in the personnel of the profession by death or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

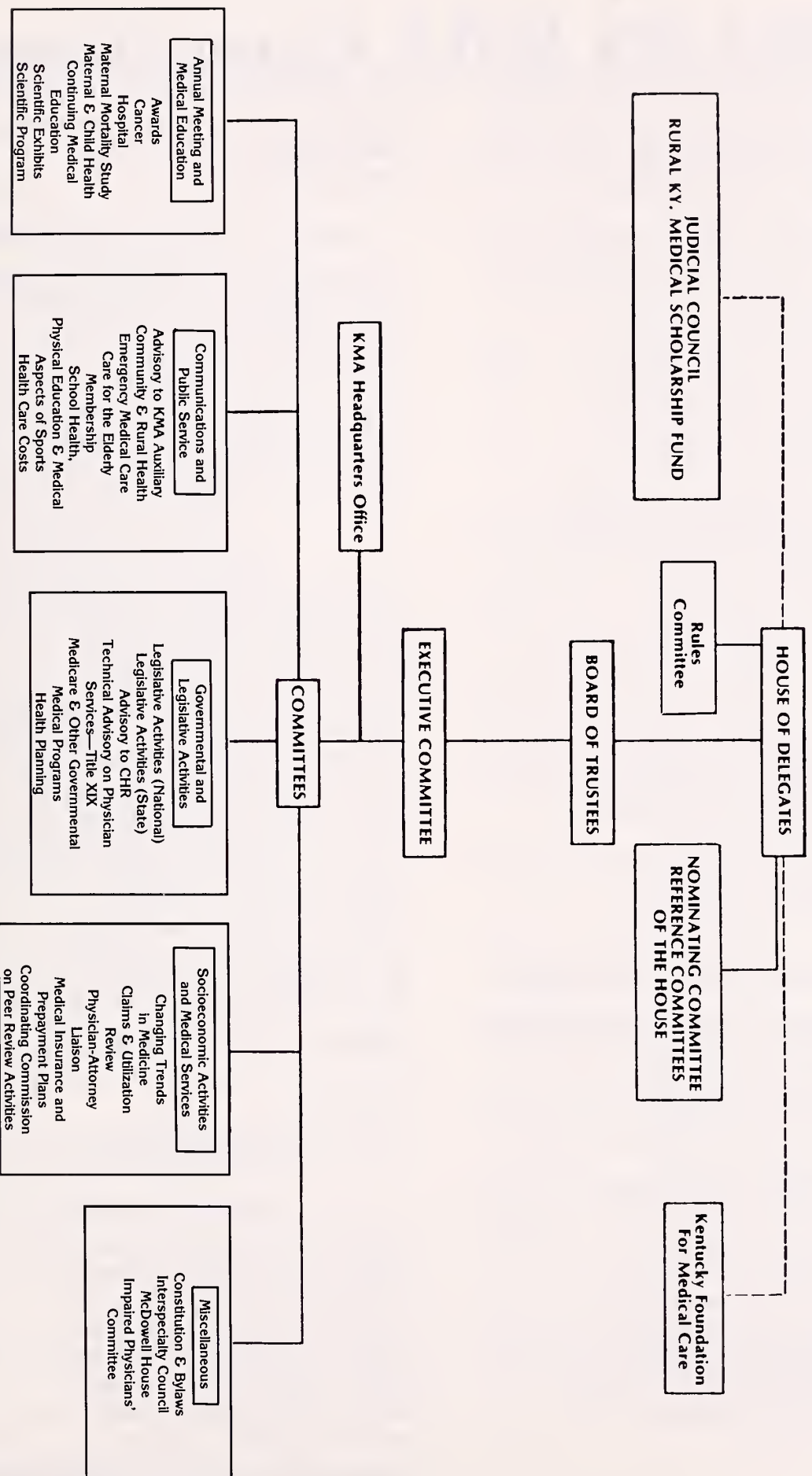
CHAPTER XIII. AMENDMENTS

Section 1. These bylaws may be amended at any session of the House of Delegates by a majority vote of the Delegates present at a meeting of that session, provided: (1) the amendment proposed is presented in writing to the Delegates thirty days prior to the meeting, or (2) the amendment is introduced in writing at a regular meeting of the House of Delegates during the session and considered at the following meeting of the session, the vote on said amendment having been postponed definitely for a period of at least one day.

Section 2. An amendment to or change in the bylaws may be proposed by a reference committee or by the Board of Trustees at the final meeting of a session of the House of Delegates, but, not having been postponed definitely for a period of one day, requires a two-thirds vote.

Section 3. An amendment to these bylaws may be proposed in writing by an individual Delegate at the final meeting of a session of the House of Delegates. If such an amendment is proposed, the proposal will be postponed definitely and studied by the appropriate reference committee at that time, reporting their recommendation back to the House of Delegates before the final meeting is adjourned. Such an amendment, having not been postponed definitely for a period of one day, requires a two-thirds vote.

KMA Organization Chart—Revised November 1984



1984-85 KMA Committees

Advisory Committee to the KMA Auxiliary

James B. Holloway, Jr., M.D., Lexington, Chairman
Dwight L. Blackburn, M.D., Berea
Charles C. Smith, Jr., M.D., Louisville

Scientific Program Committee

Max A. Crocker, M.D., Lexington, Chairman
Peter C. Campbell, M.D., Louisville
Kenneth Chasteen, M.D., Shelbyville
Wally O. Montgomery, M.D., Paducah
Hiram C. Polk, Jr., M.D., Louisville
Charles C. Smith, Jr., M.D., Louisville
George Thomas, M.D., Hopkinsville

Scientific Exhibits Committee

Richard A. Kielar, M.D., Lexington, Chairman
James P. Moss, M.D., Louisville
John W. Ratliff, M.D., Lebanon
Sibu Saha, M.D., Lexington
Joseph Kline, Jr., Ph.D., Louisville (student)

Awards Committee

S. Randolph Scheen, M.D., Louisville, Chairman
Ballard W. Cassady, M.D., Pikeville
Delmas M. Clardy, M.D., Hopkinsville
Carl Cooper, Jr., M.D., Bedford
Robert S. Howell, M.D., Louisville
David A. Hull, M.D., Lexington
Paul J. Parks, M.D., Bowling Green

Continuing Medical Education Committee

James E. Redmon, Jr., M.D., Louisville, Chairman
James W. Baker, M.D., Lexington
Garry N. Binegar, M.D., Owensboro
John V. Borders, M.D., Lexington
Charles M. Brohm, M.D., Louisville
John W. Cullen, M.D., Lexington
Michael E. Daugherty, M.D., Lexington
Brooks Horsley, M.D., Madisonville
John M. Johnstone, M.D., Richmond
Sally S. Mattingly, M.D., Lexington
James A. Parrott, M.D., Hopkinsville
Robert W. Powell, M.D., Louisville
Bruce M. Stapleton, M.D., Ashland
Alfred L. Thompson, Jr., M.D., Louisville
Bruce Spears, Louisville (student)

Ex-Officio:

Constance Fulmer, Ph.D., Lexington
KHA Representative

Council for Continuing Medical Education

Nelson B. Rue, M.D., Bowling Green, Chairman
James A. Baumgarten, M.D., Owensboro
Keith H. Crawford, M.D., Paducah
Stuart Fink, M.D., Louisville
Hiram C. Polk, M.D., Louisville
Joseph E. Roe, M.D., Madisonville
Charles R. Sachatello, M.D., Lexington
Paul J. Sides, M.D., Lancaster
Nnamdi Davis, Louisville (student)

Cancer Committee

P. Raphael Caffrey, M.D., Lexington, Chairman
Ben M. Birkhead, M.D., Louisville
Harry W. Carloss, M.D., Paducah
John D. Cronin, M.D., Lexington
Dennis L. Havens, M.D., Lexington
Walter J. Kuebler, II., M.D., Bowling Green
Yosh Maruyama, M.D., Lexington
William R. Meeker, M.D., Lexington
Carol S. Milburn, M.D., Ft. Thomas
Joseph L. Milburn, M.D., Madisonville
Condict Moore, M.D., Louisville
John S. Spratt, M.D., Louisville
Karl H. Strand, M.D., Somerset
George R. Tanner, M.D., Ft. Thomas
Max E. Wheeler, M.D., Ashland
Thomas M. Woodcock, M.D., Louisville
Matt Fargen, Louisville (student)

Ex-Officio:

Wayne B. Miller, Louisville
Mary Ann Rand, R.N., Louisville

Hospital Committee

John D. Perrine, M.D., Lexington, Chairman
William B. Cook, M.D., Prestonsburg
Beverly M. Gaines, M.D., Louisville
Laszlo Makk, M.D., Louisville
William B. Monnig, M.D., Erlanger
Edwin J. Nighbert, M.D., Lexington
Benjamin M. Rigor, M.D., Louisville
Oliver R. Roth, M.D., Ashland

COMMITTEES

Bill Bacon, M.D., Lexington (resident)
Judy Cook, Louisville (student)

Ex-Officio:

James Wilson, Pineville (KHA)

Emergency Medical Care Committee

E. Truman Mays, M.D., Somerset, Chairman
W. Stephen Aaron, M.D., Louisville
James L. Combs, M.D., Covington
G. Paul Eleazer, M.D., Berea
Frederick E. Finger, II, M.D., Bowling Green
Diller B. Groff, M.D., Louisville
Robert Hughes, M.D., Louisville
Dennis B. Kelly, M.D., Lexington
Willard L. Keith, M.D., Greenville
Henry N. Meiers, M.D., Bowling Green
Mellayne R. Myers, M.D., Lexington
James F. Rice, M.D., Louisville
R. John Sanders, M.D., Owensboro
Irvin E. Smith, M.D., Paducah
Charles B. Spalding, M.D., Bardstown
John D. Stewart, M.D., Lexington
Donald M. Thomas, M.D., Louisville
Thomas F. Whayne, Jr., M.D., Lexington
Joseph R. Yates, M.D., Paducah
Brian Zachariah, Louisville (student)
Barbara Cox, Louisville (Auxiliary member)

Interspecialty Council

Paul J. Parks, M.D., Bowling Green, Chairman
Representatives of 23 specialty societies:

Kentucky Society of Allergy and Clinical Immunology
Erwin Jones, M.D., Lexington

Kentucky Society of Anesthesiologists
Charles M. Brohm, M.D., Louisville

Kentucky Chapter, American College of Chest Physicians
Robert P. Belin, M.D., Lexington

Kentucky Dermatological Society
Jeffrey P. Callen, M.D., Louisville

Kentucky Society of Otolaryngology, Head and Neck Surgery, Inc.

Roland W. Richmond, M.D., Louisville

Kentucky Society of Eye Physicians and Surgeons
A. H. Keeney, M.D., Louisville

Kentucky Chapter, American College of Emergency Physicians
James A. Freer, M.D., Louisville

Kentucky Chapter, American Academy of Family Physicians
Paul R. Smith, M.D., Shelbyville

Kentucky Society of Gastrointestinal Endoscopy
Craig J. McClain, M.D., Lexington

Kentucky Society of Internal Medicine
Clem F. Burnett, Jr., M.D., Louisville

Kentucky Neurosurgical Society
Thomas M. Marshall, M.D., Louisville

KOGS-Kentucky Section ACOG
Donald E. Edger, M.D., Lexington

Kentucky Occupational Medical Association
William F. Hawn, M.D., Louisville

Kentucky Orthopaedic Society
William C. Ramsey, M.D., Louisville

Kentucky Society of Pathologists
William L. Miller, M.D., Greenville

Kentucky Chapter, American Academy of Pediatrics
Charles W. Taylor, M.D., Lexington

Kentucky Chapter, American College of Physicians
Carroll Robie, M.D., Louisville

Kentucky Society for Plastic and Reconstructive Surgery, Inc.
Raleigh R. Archer, M.D., Lexington

Kentucky Psychiatric Association

Kentucky Association of Public Health Physicians
H. M. Vandiviere, M.D., Lexington

COMMITTEES

Kentucky Chapter, American College of Radiology
Nettie King, M.D., Louisville

(Key Man for

Senator McConnell)

Kentucky Chapter, American College of Surgeons
Tom C. Dedmon, M.D., Harrodsburg

Kentucky Urological Association
Russell H. Davis, M.D., Pikeville

Maternal Mortality Study Committee

John W. Greene, M.D., Lexington, Chairman
Gordon D. Betts, M.D., Somerset
Glenn W. Bryant, M.D., Louisville
W. Lisle Dalton, M.D., Lexington
Joseph F. Daugherty, M.D., Florence
Arthur J. Donovan, Jr., M.D., Louisville
David L. Douglas, M.D., Frankfort
William D. Durham, M.D., Louisville
W. David Hager, M.D., Lexington
Hollie Hina, M.D., Madisonville
James K. Hurlocker, M.D., Harlan
H. James Lambert, Jr., M.D., Hazard
J. Patrick Lavery, M.D., Louisville
Terrell D. Mays, M.D., Elizabethtown
Charles R. Oberst, M.D., Louisville
John A. Petry, M.D., Louisville
James R. Pigg, M.D., Pikeville
R. D. Pitman, M.D., Williamsburg
Roy M. Slezak, M.D., Bowling Green
Walter M. Wolfe, Jr., M.D., Louisville
Don Duff, Louisville (student)

Committee on National Legislative Activities

Fred C. Rainey, M.D., Elizabethtown, Chairman (Key Man for Congressman Natcher)
Carl Cooper, Jr., M.D., Bedford (Key Man for Congressman Snyder)
William W. Hall, M.D., Owensboro (Key Man for Senator Ford)
Stephen B. Kelley, M.D., Somerset (Key Man for Congressman Rogers)
Wally O. Montgomery, M.D., Paducah (Key Man for Congressman Hubbard)

(Key Man for Congressman Perkins)
David B. Stevens, M.D., Lexington (Key Man for Congressman Hopkins)
Samuel D. Weakley, M.D., Louisville (Key Man for Congressman Mazzoli)

Committee on State Legislative Activities

Carl Cooper, Jr., M.D., Bedford, Chairman
Billy F. Andrews, M.D., Louisville
Donald C. Barton, M.D., Corbin
John E. Downing, M.D., Bowling Green
Lee C. Hess, M.D., Florence
Albert H. Joslin, M.D., Owensboro
William P. McElwain, M.D., Lawrenceburg
Robert P. Meriwether, M.D., Paducah
Wally O. Montgomery, M.D., Paducah
Preston P. Nunnolley, M.D., Lexington
Harvey A. Page, M.D., Pikeville
C. Kenneth Peters, M.D., Jeffersonton
Mort Shahmir, M.D., Bowling Green
John P. Stewart, M.D., Frankfort
Samuel D. Weakley, M.D., Louisville
Joseph G. Whelan, Jr., M.D., Louisville
Scott Zibell, M.D., Versailles
Phyllis Cronin, Lexington (Auxiliary member)

Quick Action Committee Members:

Charles C. Smith, Jr., M.D., Louisville, President
Wally O. Montgomery, M.D., Paducah, President-Elect
Nelson B. Rue, M.D., Bowling Green, Chairman, Board of Trustees
S. Randolph Scheen, M.D., Louisville, Secretary-Treasurer

Ex-Officio:

KHA Representative

Committee on Impaired Physicians

David L. Stewart, M.D., Louisville, Chairman
Marvin A. Bowers, Jr., M.D., Louisville
Burns Brady, M.D., Louisville
Keene M. Hill, M.D., Horse Cave
Gordon L. Hyde, M.D., Lexington
T. R. Miller, M.D., Lexington
Nat H. Sandler, M.D., Lexington
Barbara Cox, Louisville, Auxiliary Member

Journal of the Kentucky Medical Association

COMMITTEES

Committee on Care for the Elderly

John C. Wright, II., M.D., Louisville, Chairman
Harold D. Haller, Sr., M.D., Louisville
Paul R. Smith, M.D., London
Robert E. Smith, M.D., Covington
Richard D. Smith, M.D., Paducah
Barry S. Stoler, M.D., Louisville

Committee on Medical Insurance and Prepayment Plans

Earl P. Oliver, M.D., Scottsville, Chairman
Glenn W. Bryant, M.D., Louisville
C. Douglas LeNeave, M.D., Mayfield
William B. Monnig, M.D., Erlanger
Donald R. Neel, M.D., Owensboro
Charles H. Nicholson, M.D., Lexington
Judah L. Skolnick, M.D., Louisville
Greg Wells, M.D., Inez
David Barry, Louisville (student)

Claims and Utilization Review Committee

K. Thomas Reichard, M.D., Louisville, Chairman
Gordon W. Air, M.D., Crestview Hills
Alan Bornstein, M.D., Louisville (consultant)
McHenry S. Brewer, M.D., Louisville
Eugene H. Conner, M.D., Louisville
William L. Dowden, M.D., Lexington
John H. Doyle, M.D., Louisville
Harold T. Faulconer, M.D., Lexington
William H. Fields, D.D.S., Louisville
J. Roger Goodwin, M.D., Bowling Green
Stuart Graves, Jr., M.D., Louisville
Janet Honchell, M.D., Louisville
Charles C. Kissinger, M.D., Henderson
Dwight L. Lindsay, M.D., Louisville
Laszlo Makk, M.D., Louisville
Roy J. Meckler, M.D., Louisville
William T. Moore, M.D., Bowling Green
John D. Noonan, M.D., Paducah
John W. Pate, M.D., Madisonville
John D. Perrine, M.D., Lexington
R. D. Pitman, M.D., Williamsburg
William J. Sandman, Jr., M.D., Louisville
Edward L. Scofield, M.D., Louisville
Stephen Z. Smith, M.D., Louisville
Raymond C. Snowden, M.D., Hopkinsville
Thomas E. Stevens, M.D., Ashland
Kenneth Von Roenn, M.D., Louisville

Thomas A. Watson, M.D., Louisville
Joseph G. Whelan, Jr., M.D., Louisville
Kevin Dew, Louisville (student)

Coordinating Commission on Peer Review Activities

J. Campbell Cantrill, M.D., Georgetown, Chairman, Judicial Council
Peter C. Campbell, Jr., M.D., Louisville, Speaker
K. Thomas Reichard, M.D., Louisville, CURC
Garner E. Robinson, M.D., Ashland, Board of Trustees
David L. Stewart, M.D., Louisville, Committee on Impaired Physicians

Committee on Health Care Costs

Walter R. Brewer, M.D., Lexington, Chairman
Peter P. Bosomworth, M.D., Lexington
Jerry N. Clanton, M.D., Louisville
Ronald N. Collier, M.D., Louisville
Stanley J. Cryan, M.D., Louisville
Robert R. Goodin, M.D., Louisville
Stuart Graves, Jr., M.D., Louisville
Nettie G. King, M.D., Louisville
Bruce H. Koffler, M.D., Lexington
Byron J. Masterson, M.D., Louisville
John E. Trevey, M.D., Lexington
Max E. Wheeler, M.D., Ashland
David Easley, M.D., Louisville (resident)
Donna Elder, Louisville (student)

Committee to Investigate Changing Trends in Medicine

Charles C. Smith, Jr., M.D., Louisville, Chairman
D. Paul Alagia, Jr., M.D., Louisville
Dwight L. Blackburn, M.D., Louisville
Jerry N. Clanton, M.D., Louisville
Robert B. Cloar, M.D., Madisonville
Claire E. Cowley, M.D., Louisville
Jeffrey W. Foxx, M.D., Lexington
C. Dale Goodin, M.D., Versailles
Robert R. Goodin, M.D., Louisville
Allen E. Grimes, Jr., M.D., Lexington
Robert C. Hughes, M.D., Louisville
Van R. Jenkins, M.D., Lexington
Stephen W. Jennings, M.D., Crescent Springs
Nelson B. Rue, M.D., Bowling Green
Gary R. Wallace, M.D., Lexington
Richard A. Wright, M.D., Louisville

COMMITTEES

Kristie Jones, M.D., Louisville (resident)
Divya Bhatnager, Louisville (student)

Committee on Maternal and Child Health

Van R. Jenkins, M.D., Lexington, Chairman
Christopher Boarman, M.D., Lexington
Danny M. Clark, M.D., Somerset
M. Douglas Cunningham, M.D., Lexington
Doane Fischer, M.D., Lexington
William G. Gaidys, M.D., Greenville
Mark G. Haeberle, M.D., Ashland
Ross A. Halbleib, M.D., Corbin
John T. Houston, M.D., Owensboro
William H. Keller, M.D., Frankfort
Paul G. Kyker, Jr., M.D., Lexington
J. Patrick Lavery, M.D., Louisville
Ronald J. Lubbe, M.D., Ft. Mitchell
Patricia Nicol, M.D., Frankfort
Thomas H. Pauly, M.D., Lexington
Clinton Ray Potts, M.D., Louisville
Joan E. Rider, M.D., Lexington
Roger J. Shott, M.D., Louisville
Charles B. Spalding, M.D., Bardstown
Walter H. Zukof, M.D., Louisville
Debbie Rose, M.D., Lexington (resident)
Carol Redel, Louisville (student)

Committee on Medicare and Other Governmental Medical Programs

James A. Baumgarten, M.D., Owensboro, Chairman (Area II)
Harold L. Bushey, M.D., Barbourville (Area III)
Peter C. Campbell, Jr., M.D., Louisville (Area I)
R. Glenn Greene, M.D., Owensboro (Area II)
Ardis D. Hoven, M.D., Lexington (Area I)
Clifford F. Kerby, M.D., Berea (Area III)
Emanuel H. Rader, M.D., Pineville (Area II)
Paul Rose, M.D., Hopkinsville (Area II)
John M. Stoeckinger, M.D., Lexington (Area I)
Carmel Wallace, M.D., Corbin (Area III)
Vernon Williams, Louisville (Area I) (student)

Committee on Health Planning

Frederick A. Stine, M.D., Highland Heights, Chairman
Henry R. Bell, M.D., Elkton
Walter L. Cawood, M.D., Ashland
Robert R. Goodin, M.D., Louisville
Allen E. Grimes, Jr., M.D., Lexington

Walter I. Hume, Jr., M.D., Louisville
James E. Johnson, Jr., M.D., Lexington
John L. Kiesel, M.D., Lexington
John S. Spratt, M.D., Louisville
Hugh Foshee, Louisville (student)

Technical Advisory Committee on Physician Services (Title XIX)

Harold L. Bushey, M.D., Barbourville, Chairman
Donald C. Barton, M.D., Corbin
Winston L. Burke, M.D., Lexington
William T. Watkins, M.D., Somerset
Robert T. Longshore, M.D., Covington

Ex-Officio:

Robert N. McLeod, Jr., M.D., Somerset

Committee on Community and Rural Health

Don R. Stephens, M.D., Cynthiana, Chairman
Henry R. Bell, M.D., Elkton
Wallace Bell, M.D., Morganfield
Timothy D. Costich, M.D., Lexington
Michael Lee Cummings, M.D., Albany
Salem M. George, M.D., Lebanon
Francis J. Halcomb, M.D., Scottsville
George R. Nichols, M.D., Louisville
Eric A. Norsworthy, M.D., Hartford
Thomas K. Slabaugh, M.D., Lexington
Garnett J. Sweeney, Jr., M.D., Lexington
Donald J. Swikert, M.D., Edgewood
Dante Graves, Louisville (student)

Committee on School Health, Physical Education and Medical Aspects of Sports

R. Quin Bailey, M.D., Danville, Chairman
John R. Allen, M.D., Lexington
Fred A. Austin, III, M.D., Paducah
Charles A. Barlow, M.D., Hopkinsville
William E. Blackburn, Jr., M.D., Lexington
Mark Bowden, M.D., Lexington
Bobby J. Brooks, M.D., Campbellsville
William H. Brooks, M.D., Lexington
Carl J. Brueggemann, M.D., Covington
James R. Burt, M.D., Bowling Green
Charles E. Caldwell, Jr., M.D., Florence
Donald A. Cantley, M.D., Henderson
George C. Cheatham, M.D., Greensburg
John W. Collins, M.D., Lexington

COMMITTEES

Jack F. Ditty, Jr., M.D., Ashland
Kenneth M. Eblen, M.D., Henderson
Rudy Ellis, M.D., Louisville
Ralph T. Fossett, M.D., Morehead
Carroll E. Howard, M.D., Owensboro
Marshall R. Johnson, M.D., Elizabethtown
Leslie W. Langley, Jr., M.D., Elizabethtown
Cecil D. Martin, M.D., Carrollton
William H. Matthew, M.D., Grayson
Garner E. Robison, M.D., Ashland
Raymond G. Shea, M.D., Louisville
Kenneth L. Stinnette, M.D., Bardstown
Jerry C. Sutkamp, M.D., Ft. Thomas
Charles H. Veurink, M.D., Richmond
Ronald E. Waldrige, M.D., Shelbyville
William G. Wheeler, Jr., M.D., Lexington
Jerry L. Woolum, M.D., Pineville
Thomas L. Young, M.D., Georgetown
Nick Nikolov, Louisville (student)

Subcommittee on Youth Education

R. Quin Bailey, M.D., Danville, Chairman
Frederick A. Austin, III, M.D., Paducah
Diane Caines, Frankfort (Dept. of Education)
Sylvia Davis, Paducah, Auxiliary
Carol Goodin, Louisville, Auxiliary
Gary L. Huber, M.D., Lexington, Consultant
Kenneth N. Schickler, M.D., Louisville
Thomas L. Young, M.D., Georgetown
Mark Smith, Louisville (student)

Advisory Committee to the Cabinet for Human Resources

Charles C. Smith, Jr., M.D., Louisville, President
Wally O. Montgomery, M.D., Paducah, President-Elect
Nelson B. Rue, M.D., Bowling Green, Chairman, Board of Trustees
S. Randolph Scheen, M.D., Louisville, Secretary-Treasurer
Carl Cooper, Jr., M.D., Bedford, Chairman, Committee on State Legislative Activities

Physician-Attorney Liaison Committee

Thomas M. Marshall, M.D., Louisville, Co-Chairman
Thomson R. Bryant, M.D., Lexington
Gordon L. Hyde, M.D., Lexington
Lynn L. Ogden, M.D., Louisville

Membership Committee

Harold D. Haller, Sr., M.D., Louisville, Chairman
Charles F. Allnutt, M.D., Covington
Dwight L. Blackburn, M.D., Louisville
Randall S. Brown, M.D., Henderson
Harold L. Bushey, M.D., Barbourville
Kenneth P. Crawford, M.D., Louisville
Michael E. Daugherty, M.D., Lexington
Veryl F. Frye, Jr., M.D., Somerset
Albert H. Joslin, M.D., Owensboro
John W. McClellan, Jr., M.D., Henderson
J. David Richardson, M.D., Louisville
Irene E. Roeckel, M.D., Lexington
Russell L. Travis, M.D., Lexington
Lolita S. Weakley, M.D., Louisville
L. Martin Wilson, M.D., Bowling Green
Pam Nurenburg, M.D., Lexington (resident)
W. Steve Wilson, Louisville (student)

Committee on Constitution and Bylaws

Robert L. McClendon, M.D., Louisville, Chairman
Peter C. Campbell, Jr., M.D., Louisville
Kenneth P. Crawford, M.D., Louisville
Thomas L. Heaven, M.D., Highland Heights
R. J. Phillips, M.D., Owensboro

McDowell House Board of Managers

David W. Kinnaird, M.D., Louisville, Chairman
William P. Baas, M.D., Danville
Robert C. Bateman, M.D., Danville
Branham B. Baughman, M.D., Frankfort
C. Melvin Bernhard, M.D., Louisville
James L. Cogar, Harrodsburg
Eugene H. Conner, M.D., Louisville
Glenn U. Dorroh, M.D., Lexington
Richard Doughty, Lexington
George Grider, Danville
W. Mack Jackson, M.D., Daville
Blaine Lewis, Jr., M.D., Louisville
Charles E. Martin, M.D., Lexington
Gloria Martin, Lexington
Edward E. Nickels, Harrodsburg
Dorothy Rush, Fern Creek
G. Russell Shearer, M.D., Danville
Nancy Stiles, Owensboro
Enos Swain, Danville
James Thomas, Harrodsburg
Colonel Charles Tucker, Louisville

COMMITTEES

Edward H. Walter, Jr., Danville

Robert S. Sparkman, M.D., Dallas, TX (Honorary Member)

Rules Committee of the House of Delegates

John E. Downing, M.D., Bowling Green, Chairman

Robert P. Belin, M.D., Lexington

Kenneth P. Crawford, M.D., Louisville

R. Glenn Greene, M.D., Owensboro

Emanuel H. Rader, M.D., Pineville

Ex-Officio:

Peter C. Campbell, Jr., M.D., Louisville

Thomas L. Heavern, M.D., Highland Heights

Kentucky Physicians Care Operating Committee

Russell L. Travis, M.D., Lexington, Chairman

Bob M. DeWeese, M.D., Louisville

Preston P. Nunnolley, M.D., Lexington

William P. McElwain, M.D., Lawrenceburg

Emanuel H. Rader, M.D., Pineville

Ad Hoc Committee on Long-Range Planning

Nelson B. Rue, M.D., Bowling Green (KMA),
Chairman

Ballard W. Cassady, M.D., Pikeville (KMIC)

Dwight L. Blackburn, M.D., Berea (Agency)

Charles C. Smith, Jr., M.D., Louisville (Credit Union)

Richard F. Hench, M.D., Lexington (KMCO)

Ex-Officio:

Robert G. Cox

Carl L. Wedekind, Jr.

Ad Hoc Committee on a Socioeconomic Conference

Charles C. Smith, Jr., M.D., Louisville, Chairman

James A. Baumgarten, M.D., Owensboro

Henry R. "Hank" Bell, M.D., Elkton

Stuart Graves, Jr., M.D., Louisville

Richard F. Hench, M.D., Lexington

Wally O. Montgomery, M.D., Paducah

Nelson B. Rue, M.D., Bowling Green

Adelyn Spalding, Louisville, Auxiliary

THE JOURNAL OF THE KENTUCKY MEDICAL ASSOCIATION

Index to Volume 82—1984

January.....Pages 1 to 54	July.....Pages 309 to 358
February.....Pages 55 to 108	August.....Pages 359 to 444
March.....Pages 109 to 150	September.....Pages 445 to 498
April.....Pages 151 to 204	October.....Pages 499 to 546
May.....Pages 205 to 254	November.....Pages 547 to 612
June.....Pages 255 to 308	December.....Pages 613 to 784

Edited by A. Evan Overstreet, M.D.
Under the Supervision of the Board of Trustees

SCIENTIFIC ARTICLES

A

- Antimicrobial Therapy. A Clinical Approach to, Case #23, Fever and Lymphadenopathy in A Farmer, 315
- *Antibiotic-Impregnated Beads in Orthopedic Infectious Problems, 25
- Aortic Root Aneurysms with Associated Aortic Valve Insufficiency, 127
- Aortic Thrombosis in the Neonate, 631
- Atherosclerotic Aorta. Spontaneous Rupture of the Normal Diameter, 159
- Atrial Myxoma: Benign and Malignant, 319

B

- Bilateral Tubal Ligation, Complications Following Postpartum Sterilization by, 171
- Breast Reconstruction After Mastectomy, 183
- Broad Spectrum Antibiotic Therapy. Coagulopathy Associated With, 125

C

- Cancer Mortality Among Kentuckians, 1971-80, Geographic Variation in, 66
- Congenital Lung Cysts A 16-Year-Review, Surgical Management Of, 327

D

- Delirium in Acute Mental Disturbance. Diagnosing, 168
- Delusions in the Absence of Other Psychotic Symptoms, The Occurrence of, 559

E

- Empyema in Children, Acute Non-Tuberculous, A 25-Year-Review, 163

F

- Fractures of the Pelvis, 470

G

- Gastroduodenal Crohn's Disease, 224
- Gastroenterology, Therapeutic, 215
- Gunshot Wounds in Children, A Preventable Disease, 63

H

- Hearing Loss in Childhood Communication Disorders, 263
- Heparin Therapy in Open Heart Surgery Patients, A Trial of Low-Dose, 75
- Herpes Simplex Virus Encephalitis, Neonatal, 268

I

- Insulin Therapy, Human: The Index Case, 367
- In Vitro Fertilization and Embryo Transfer, Current Status of, 278

K

L

- Laser Therapy in Gynecology, Current Status of, 562
- Leukemia, Immunoblastic, 13

M

- Malignant Skin Tumors Presenting as Seborrheic Keratosis, 221

P

- *Pancreas Cancer, 337
- Pediatric Cardiac Surgery, Mortality in, 273
- Pneumothorax, Spontaneous, 369
- Pseudoaneurysm of the Thoracic Aorta, Chronic Traumatic: Recognition by Computed Tomography, 627
- Psychiatric Care, Involuntary Outpatient, 511
- Pulmonary Tuberculosis, Radiographic Manifestations of, 17

R

- Reconstruction of Radiation Injury of the Chest Wall by a Latissimus Dorsi Musculocutaneous Flap, Single Stage, 374
- Runner, Sudden Death of a, 9

S

- Saliva Lithium: Too Variable for Significant Plasma Level Correlations, 451
- Sleep Apnea: The University of Kentucky Experience, 567
- Staphylococcal Pneumonia in Pediatric Practice, 458
- Stress: A Psychosocial View, 115

T

- Teaching Medical Students Gynecologic History and Physical Examination, 80
- Testicular Scanning in the Evaluation of the Acute Scrotum, 514
- Testicular Seminoma, 213
- Tracheobronchomegaly (Mounier-Kuhn Syndrome), 455
- *Transposition of the Great Arteries, Anatomic Repair of, 287
- *Tumors of the Mediastinum, 579

V

- Vascular Access, New Concepts in, 121
- Vasectomy Reversal, Techniques and Results of Microsurgical, 507

SCIENTIFIC AUTHORS

A

- Allen, David T., M.D., M.P.H., 66
- Ashcraft, Walter C., M.D., 159
- Amin, Mohammad, M.D., 514
- Attum, Abdulla A., M.D., 319

B

- Baldwin, Hillel, B.Sc., 451
- Barr, Barbara L. R.N., 367
- Baumann, Robert J., M.D., 268
- Belker, Arnold M., M.D., 507
- Benjamin, Stanley, B., M.D., 215
- Bernardy, Mark O., M.D., 627
- Bowling, Roy, M.D., 127
- Buchholz, Dennis J., Ph.D., 559

C

- Carlson, John A., Jr., M.D., 562
- Cook, Christine L., M.D.
- Coffey, Lillie L., R.T., 514

Crump, Gary L., 168
Cunningham, David R., Ph.D., 263

D

Daniel, Terri L., M.D., 627
Dav, Thomas G., M.D., 562
DeLeon, Frank D., M.D., 278

E

Earle, Gary F., M.D., 579

F

Farmer, John M., M.D., 171
Fulton, Robert L., M.D., 159

G

Garrison, R. Neal, M.D., 121
Gilmore, Robin, M.D., 268
Girardet, Roland E., M.D., 75, 273
Gray, Laman A., Jr., M.D., 127
Griffen, Ward O., Jr., M.D., Ph.D., 125
Groff, Diller B., M.D., 631
Gullickson, Donald, M.D., 159

H

Harty, Mary L., M.D., 470
Harty, James L., M.D., 514
Hilb, Jeffrey A., M.D., 9
Hinds, M. Ward, M.D., M.P.H., 66
Hoagland, Bill, M.D., 244
Hodge, Steven J., M.D., 221
Homra, C. Mark, B.S.
Howe, Robin, M.D., 127

J

John, Michael, D., M.D., 221
Jones, Mary P., M.S.S.W., 63
Jose, Baby, M.D., 213

K

Kays, Howard, M.D., 213
Kenady, Daniel E., M.D., 337

L

Lansing, Allan M., M.D., Ph.D., 75, 273, 319
Lee, Anthony W., M.D., 125
Lee, Charles, M.D., 268
Leichter, Steven B., M.D., 367
Lippmann, Steven, M.D., 168, 451
Long, Graydon A., M.D., 327
Luce, Edward A., M.D., 183, 567

M

Manshadi, Manoochehr, M.D., 168, 451
Marshall, M. Ernest, M.S., M.D., 13
Martinez, Serge A., M.D., 263
Masri, Zahi, H., M.D., 75, 273

Masterson, Byron J., M.D., 80, 562
Mavroudis, Constantine, M.D., 127, 287, 631
Mayo, Porter, M.D., 163, 327, 369, 455
McCallum, Thomas, M.D., 159

N

Newell, Gordon B., M.D., 221
Nolph, Michael B., M.D., 263

O

Ogden, Lynn L., M.D., 319

P

Peeno, Linda P., M.D., 315
Pellegrini, Adrian J., 168
Perkins, Lee P., M.D., 213
Pesce, Ulises, M.D., 559
Phillips, Barbara, M.D., 567
Powell, Connie, 327
Proudfoot, Warren H., M.D., 125

R

Raff, Martin J., M.D., 315
Redinger, Richard N., M.D., 215
Regan, William, M.D., 451
Richardson, Ken E., M.D., 121
Romm, Sharon, M.D., 183

S

Saha, Sib P., M.D., 327
Sanfilippo, Joseph S., M.D., 80
Schwab, John J., M.D., 115
Schikler, Kenneth, M.D., 63
Seligson, David, M.D., 25, 470
Short, Kerry L., M.D., 514
Simon, Michael W., M.D., 458
Shively, Eugene H., M.D., 224
Skaggs, Joseph W., D.V.M., M.P.H., 66
Stein, Dorothy M., M.D., 263
Stone, I. Keith, M.D., 562
Stryker, Allan, M.D., 374

T

Temes, Gerald D., M.D., 121

V

W

Walsh, John, M.D., 268
Wathen, Ronald L., M.D., 121
Weitzel, William D., M.D., 511
Wieman, Jeffery, M.D., 224
Wilkerson, Shirley, M.D., 631
Wilson, Eric C., M.D., 13
Wilson, H. David, M.D., 268
Wong, Peter, M.D., 268, 458
Woodring, John H., M.D., 17, 627
Wright, Richard A., M.D., 215

SPECIAL ARTICLES

Profile: Donald C. Barton, M.D., 192
The Physician and the Right to Health Care, 235
Kentucky's Doctors Elkin Contributions to Growth of Emory's Medical School, 291
A Brief History of the University of Kentucky Department of Surgery, 343
High School Athletic Injuries, 383
Profile: Charles C. Smith, Jr., M.D., KMA President, 522

SPECIAL ARTICLES AUTHORS

Bailey, R. Quin, M.D., 383
Clark, Dorothy, M.D., 343
Hyde, Gordon L., M.D., 343
Kinnaird, David W., M.D., 291
Robinson, Garner E., M.D., 383
Wilkerson, Gary B., A.T.C., 383
Wright, Richard A., M.D., 235
Young, Donna M., 192, 522

SPECIAL FEATURES

Deceased Kentucky Physicians, 642
Digest of Proceedings, 1984,
KMA Annual Meeting Section, 398
KMA Committees, 1984-85,
KMA Constitution and Bylaws, 761
KMA House of Delegates, 661
KMA Organization Chart, 769

ASSOCIATION NEWS

A

AMA Interim Meeting, Highlights of, 141
1982-83 Annual Report Kentucky State Board of Medical Licensure, 48
Annual Meeting Information, 354, 355
Annual Meeting News, 294, 303, 304, 492
Annual Meeting, Highlights of 1984, 650

C

Call for Museum Acquisitions, 104
Changing Trends in Medicine, Report of the Committee to Investigate, 595

D

E

Emergency Medical Care Seminar, 197, 485
Emergency Medical Care Seminar Program, 245

G

Gray, Laman A., Sr., M.D. Retires from McDowell House Board of Managers, 299

I

Index, 777
International Conference on AIDS, 495

J

O

EDITORIALS

K

KMA Board of Trustees, Digest of Proceedings, 100, 305
KMA Increases AMA Membership, 300
KMA Wraps Up 134th Annual Meeting, 535
Kentucky Doctors Rank Among Top U.S. Medical Specialists, 493
Kentucky Physicians Gather to Update Medical Knowledge, 493

Officers, KEMPAC Board of Directors, 41

P

Physician Recruitment Fair, 353, 492

R

Doctor Rainey seeks AMA Position, 145

S

Sutherland, G. Douglas, Elected President of BCBS, 45

M

Member Service, Another, 303
Montgomery, Wally O., M.D., Nominated for President-elect, 351

N

Nominations Being Accepted for Three Annual KMA Awards, 302

T

W

New Kids on the Block, 31
PCG, 85
Editorial Cooperation, 133
Anachronisms, 181
Breast Cancer and Normal Mammograms, 233
The Market, 285
The Iceman Cometh, 341
W.A.S.H., 391
To Be Or Not To Be, 465
The Community Health Building, 465
SZS, 521
DLS, 593
MSB, 639

EDITORIALS AUTHORS

Brewer, McHenry S., M.D., 233, 639
Grider, Paul C., M.D., 75, 465
Miller, Milton F., M.D., 31, 391
Overstreet, A. Evan., M.D., 285
Overstreet, Sam A., M.D., 465
Smith, Stephen Z., M.D., 133, 521
Stewart, David L., M.D., 181, 593
Schrodt, G. Randolph., M.D., 341

Has your drinking progressed from ease of use,
to unease with use into disease and abuse?

for Help Call

IMPAIRED PHYSICIANS COMMITTEE

502-459-9790

CHANGING ADDRESS?

**Please let us know at least two months before
changing your address.**

**Send new address to:
Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, KY. 40205**

MANUSCRIPT INFORMATION

Manuscripts will be accepted for consideration with the understanding that they are original and are contributed solely to The Journal. They should be submitted in duplicate, typed with double spacing, and should usually not exceed 2,000 words in length. The transmittal letter should designate one author as correspondent and include his complete address and telephone number.

In addition, in view of The Copyright Revision Act of 1976, effective January 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of The Journal Of The Kentucky Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to The Journal in the event that such work is published by The Journal.

Titles should include the words most suitable for indexing the article, should stress the main point, and should be short.

A synopsis-abstract must accompany each manuscript. The synopsis should be a factual (not descriptive) summary of the work and should contain: 1) a brief statement of the paper's purpose, 2) the approach used, 3) the material studied,

and 4) the results obtained. The synopsis should be able to stand alone and not merely duplicate the conclusions.

References should be cited consecutively in the text and should contain, in order, the author, title of article, source, volume, inclusive page numbers, year. Journal abbreviations should conform to the Index Medicus. The Journal of KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material is reviewed by the Board of Editors and publication of any article is not to be deemed an endorsement of the views expressed therein. The editors may use up to six different illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article are made with the printer and order forms are sent to all authors at the time of publication. When revisions and alterations not on the original copy are made by the authors on the galley proofs, a charge will be made to the authors.

Scientific articles should be mailed to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

COMPLETE LABORATORY DOCUMENTATION¹⁻⁵ ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY
CONFIRMED BY EXPERIENCE

DALMANE[®]

flurazepam HCl/Roche

THE COMPLETE HYPNOTIC
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset¹⁻⁶
- More total sleep time¹⁻⁶
- Undiminished efficacy for at least 28 consecutive nights²⁻⁴
- Patients usually awake rested and refreshed⁷⁻⁹
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy^{2,5,10-12}

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE[®]
flurazepam HCl/Roche

References: 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

DALMANE[®] ®
flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. **Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



Roche Products Inc.
Manati, Puerto Rico 00701

DOCUMENTED
IN THE SLEEP
LABORATORY¹⁻⁵ ...

PROVEN IN
THE PATIENT'S
HOME



FOR A COMPLETE NIGHT'S SLEEP

DALMANE[®]
flurazepam HCl/Roche

STANDS APART

15-MG/30-MG CAPSULES



See preceding page for references and summary of product information.
Copyright © 1984 by Roche Products Inc. All rights reserved.